www.itmag.com

TMC INTERNET TELEPHONY®

VOLUME 11/NUMBER 3 MARCH 2008

The IP Communications Authority Since 1998™

The **Greening of** Information **Technology** Pg. 58

Videoconferencing

Telepresence

IPTV

Mobile TV

Video!

Videoconferencing, Telepresence, IPTV and Mobile TV

Videoconferencing

Telepresence

IPTV

Mobile TV

Videoconferencing

Telepresence

QoS in Enterprise Networks Pg. 52

Service-Oriented Architectures Pg. 66

Adventures in IMS Pg. 62

Blue and Yellow make Green

Partner with Broadvox!

broadvoxGO!
SIP TRUNKING PRODUCTS

- Commission residuals up to 20%!
- Increase sales and profits
- Receive lead generation support
- Offer clients a complete solution
- Co-marketing campaigns
- Technical eTraining

Complete your IP PBX offering with Broadvox GO! SIP Trunking

Deliver savings of up to 70% to your customers providing unlimited local calling, toll-free, nationwide and international calling over a coast-to-coast network. Offer bundled DIDs, Local Number Portability, business continuity, dynamic load balancing and support for Unified Messaging and Presence-based applications.

Visit us! Booth #1317
March 17-20 | Gaylord Palms, Orlando

VoiceCon

Join our SIP Trunking Partner Program!

866.770.9960 | info@broadvox.com | www.broadvox.com

broadvox™
BUSINESS CONNECTS HERE

INTERNET TELEPHONY®

Group Publisher and Editor-In-Chief,
Rich Tehrani
(rtehrani@tmcnet.com)

EDITORIAL
Group Editorial Director, **Greg Galitzine**
(ggalitzine@tmcnet.com)

Executive Editor, **Richard "Zippy" Grigonis**
(rgrigonis@tmcnet.com)

Associate Editor, **Erik Linask**
(elinask@tmcnet.com)

TMC LABS
Executive Technology Editor/CTO/VP, **Tom Keating**
(tkeating@tmcnet.com)

ART/DESIGN
Creative Director, **Alan Urkawich**

Graphic Designer, **Lisa Mellers**

EXECUTIVE OFFICERS

Nadji Tehrani, *Chairman and CEO*

Rich Tehrani, *President*

Dave Rodriguez, *VP of Publications and Conferences*

Michael Genaro, *VP of Marketing*

Tom Keating, *CTO, VP*

ADVERTISING SALES
Sales Office Phone: 203-852-6800

Senior Advertising Director —
Central/Eastern U.S., Canada, Europe, Israel , Latin America
Anthony Graffeo, ext. 174, (agraffeo@tmcnet.com)

Strategic Accounts Sales Executive —
Jaime Hernaez, ext. 217 (jhernaez@tmcnet.com)

Account Executive —
Marjorie Dormevil, ext. 125 (mdormevil@tmcnet.com)

Account Executive —
Bryan Thirkield, ext. 124 (bthirkield@tmcnet.com)

SUBSCRIPTIONS
Circulation Director, **Shirley Russo**, ext. 157
(srusso@tmcnet.com)

Annual digital subscriptions to ***INTERNET*** **TELEPHONY®**: free to qualifying U.S., Canada and foreign subscribers. Annual print subscriptions to ***INTERNET*** **TELEPHONY®**: free, U.S. qualifying readers; $29.00 U.S. nonqualifying, $39.00 Canada, $60.00, foreign qualifying and nonqualifying. All orders are payable in advance in U.S. dollars drawn against a U.S. bank. Connecticut residents add applicable sales tax. For more information, contact our Web site at www.itmag.com or call 203-852-6800.

EXHIBIT SALES
Sales Office Phone: 203-852-6800

Global Events Account Directors
Companies whose names begin with:

A-G or #s: **Maureen Gambino** (mgambino@tmcnet.com)

H-P: **Chris Waechter** (cwaechter@tmcnet.com)

Q-Z: **Joe Fabiano** (jfabiano@tmcnet.com)

Conference Sales Director, **Frank Coppola**
(fcoppola@tmcnet.com)

About *INTERNET* TELEPHONY®
Internet telephony is revolutionizing telecommunications through the convergence of voice, video, fax, and data, creating unprecedented opportunities for resellers, developers, and service providers alike. ***INTERNET*** **TELEPHONY®** focuses on providing readers with the information necessary to learn about and purchase the equipment, software, and services necessary to take advantage of this technology. ***INTERNET*** **TELEPHONY®** readers include resellers, developers, MIS/networking departments, telecom departments, datacom departments, telcos/LECs, wireless/PCS providers, ISPs, and cable companies.

Reflections on the Bus at ITEXPO East

For those of you who were fortunate enough to be there, ITEXPO (News - Alert) East (January 23rd to 25th, 2008) in Miami Beach was a resounding success, perhaps the most-attended show TMC (News - Alert) has ever done.

American expos are noted for their promotional items: deluxe pens, complimentary snacks and the occasional "booth babe" wanting to scan your ID card. Our show had the "Allworx (News - Alert) bus" a Greyhound-sized behemoth on loan from Excel, a sumptuous vehicle equipped with leather chairs, wide screen TV, kitchen and/or wet bar, rest room, and whatever other comforts of home you can think of.

I naturally felt obligated to visit the multi-wheeled contraption, sitting in a comfy chair and savoring a can of cola. (Note to self: Hold next expo in a parking lot. Tell everybody to bring a bus.) Surely even the most famous rock band would be hard-pressed to top this fine example of mobile luxury. As I sat there I tried to ponder the spirits of Expos past, present and future, but my Dickensian attempts at reverie were placed on the back burner by a thorough enjoyment of my exquisite surroundings. The bus sure beat the multi-storey booths you encounter in European expos, with their electric elevators and well-stocked displays of hard liquor.

Allworx is one of those rare charmed companies that can't help but do everything in a totally correct manner. They hire Spanish-speaking booth staff for a Miami show. They have a superb, clockwork-like organization. And most important of all, they have perhaps the greatest phone system that exists for small businesses.

Some years ago, my CPA asked me what kind of phone system he should buy for his burgeoning firm. The old joke in those days was, "Tell 'em to buy a Toshiba," since that was the most reliable and easiest-to-use phone system of its day. It was the Model T. You couldn't go wrong by recommending it. So, I told my CPA to buy one. He and his staff did so. They loved it and they still use it to this day.

Today, when somebody in an SMB asks me what phone system to buy, I inevitably have a similar knee-jerk reaction. But this time I say, "Buy an Allworx." Yes, I know, editors such as Yours Truly should generally refrain from making personal, celebrity endorsements (or in my case, minor celebrity endorsements), but I can't help but feel that Allworx has risen to the same position that Toshiba enjoyed not too long ago. It's the system that you can effortlessly and guiltlessly recommend, even if you happen to be distracted by simultaneously being drunk and standing in a hurricane.

The history of the telecom industry is rife with companies that were notorious, infamous and just plain non-famous: companies that raised a lot of marketing money and never delivered a usable product, and others that had a great product but didn't know how to market it. In the case of Allworx, they can do both. Indeed, they can do everything, and well. So well, in fact, that at times it seems kind of eerie. But none of us, least of all the fortunate owners of Allworx systems, should question that traditional winning formula of technical expertise, a dynamic work ethic, marketing savvy, management know-how, and a pinch from Lady Luck.

And for a company like Allworx that's on the move, what better exhibit than a bus? **IT**

Richard Grigonis is Executive Editor of TMC's IP Communications Group.

Big Power, Small Package

Some of the biggest developments in communications lately have been the smallest. In fact, if you have a smart phone you are able to take advantage of a slew of new software solutions which don't need a PC.

Mobile VoIP. Perhaps the most powerful of these applications is the simplest as I just came across a wonderful money saver/productivity enabler from a company called MobileMax (www.tmcnet.com/1662.1). I ran into the company at their mobbed booth at ITEXPO (www.itexpo.com) in Miami a few weeks back. Their software enables a smart phone to ascertain that you're dialing an international number. When it senses this, your call is transferred to a local U.S. number and then sent to its destination via a VoIP service provider.

The cost savings associated with using a VoIP carrier to make these calls is tremendous as cellular calls to international numbers are always very expensive. Moreover, cellular phone companies block international calls in some cases and for those of us who never bothered to unlock this feature; we can now easily make cellular calls to any other country we like.

Sure there are calling cards that perform the same function but if you don't like calling cards or you hate the hassle of dialing an endless string of numbers and passwords, this sort of product is for you.

In addition, as Huw Rees, 8x8 VP of Sales & Marketing recently pointed out in a TMCnet podcast (www.tmcnet.com/1663.1), the quality of calling card calls can vary greatly.

Incidentally, 8x8, the company behind the successful Packet8 service, has a service called MobileTalk (www.tmcnet.com/1664.1) which uses MobileMax technology and routes the calls on the Packet8 network. I tried the service out repeatedly to numbers in France and had flawless service. A single glitch: when I redial a number from my Windows Mobile 6 smart phone, the software doesn't recognize the number as international so it doesn't kick in. To compensate, I don't use the phone's redial feature for international calls.

People who have told me in the past that there's nothing new in telecom should wake up and see what Packet8 has done. Sure it's just basically mobile arbitrage, but when you get your software installed on lots of cellphones, there is a great deal of potential for future services to be sold. And by the time you read this, there should be a Java version available, so just about every phone will benefit from this technology.

Mobile AP. Another handheld productivity application worth mentioning is called WMWifiRouter (www.tmcnet.com/1665.1). It transforms your Windows Mobile based smart phone into a wireless access point while utilizing the cellular network for Internet access.

So if you have a few laptops with built-in WiFi at a location but no nearby Internet access, then as long as your phone can access the wireless network, you can run this program and convert the phone into an access point, to which nearby computers can attach themselves. Some service providers offer a similar "tether" function, but this costs money and is limited to a single Bluetooth device. WMWifiRouter is free and allows multiple devices to be connected. I tested it with three simultaneous laptops and at a separate time with a Nokia N800 (www.tmcnet.com/1666.1) tablet computer. Each time it worked flawlessly but the phone does get quite hot and, as you can imagine, using your phone as an access point dramatically decreases battery life.

One challenge: if you get a phone call while your phone is in AP mode, the phone stops being an AP and you may have to reboot the phone to get WMWifiRouter working again.

Mobile UC. Even more power comes to your mobile device through Simulscribe (www.tmcnet.com/1667.1), the company that puts the power of visual voicemail (www.tmcnet.com/1668.1) onto your phone so you can more effectively manage messages on the go. This software downloads your voicemails while simultaneously transcribing the messages. You merely click on a message to read or listen to it.

A free trial (www.tmcnet.com/1669.1) of the software available and I suggest you give it a try. I use a transcribed voicemail service today and can tell you first-hand that once you try one of these services you will wonder how you ever lived without it.

Big Merger, Small Problem. Perhaps the biggest tech news as of late is that of Microsoft (News - Alert) acquiring Yahoo! I find myself torn over whether this acquisition is good or bad for consumers but in the end it does seem that Google is unstoppable and this merger will create a credible alternative for advertisers.

TMCnet (www.tmcnet.com)

TMCnet EDITORIAL
VP of Publications & Conferences, **Dave Rodriguez**
Group Editorial Director, **Greg Galitzine**
Assignment Editor, **Patrick Barnard**
Associate Editor, **Stefania Viscusi**
Associate Editor, **Mae Kowalke**
Contributing Editorial: **David Sims, Susan Campbell, Anuradha Shukla, Niladri Sekhar Nath, Divya Narain**

TMCnet PRODUCTION
Webmaster, **Robert Hashemian**
Creative Director, **Alan Urkawich**
Senior Web Designer, **Maxine Sandler**
Web Designer, **Karen Milosky**
Advertising Traffic Manager, **John Sorel** (jsorel@tmcnet.com)

MARKETING
VP of Marketing, **Michael Genaro**
Creative Director, **Alan Urkawich**
Marketing Manager, **David Luth**
Marketing Manager, **Jan Pierret**

FINANCE
Controller, **Kevin Kiley**
Accounting Manager, **Frank Macari**
Accounts Coordinator, **Mary Hodges**

READER INPUT
INTERNET TELEPHONE® encourages readers to contact us with their questions, comments, and suggestions. Send e-mail (addresses above), or send ordinary mail. We reserve the right to edit letters for clarity and brevity. All submissions will be considered eligible for publication unless otherwise specified by the author.

IDENTIFICATION STATEMENT
INTERNET TELEPHONE® magazine (ISSN: 1098-0008) is published monthly by Technology Marketing Corporation, One Technology Plaza, Norwalk, CT 06854 U.S.A. Annual print subscriptions: free, U.S. qualifying readers; $29.00 U.S. nonqualifying, $39.00 Canada, $60.00, foreign qualifying and nonqualifying. Periodical postage paid at Norwalk, CT and at additional mailing offices. Postmaster: Send address changes to: INTERNET TELEPHONE®, Technology Marketing Corporation, One Technology Plaza, Norwalk, CT 06854 USA.

REPRINTS AND LIST RENTALS
For authorized reprints of articles appearing in INTERNET TELEPHONE®, please contact Reprint Management Services at:
The YGS GroupToll Free: 800.290.5460
P: 717.399.1900 x100 F: 717.399.8900
e-Mail: tmcnet@theygsgroup.com • www.theYGSgroup.com

FOR LIST RENTALS
please contact Glenn Freedman at glennf@l-i-s-t.com or call 516-358-5478, ext. 101.

INTERNET TELEPHONE®
A Technology Marketing Publication,
One Technology Plaza,
Norwalk, CT 06854 U.S.A.
Phone: 203-852-6800
Fax: 203-853-2845 and 203-838-4070

Balancing your telecom needs

with a solution that's more than just a softswitch

SLICE® 2100™

POWERED BY TRANSip

REDCOM's SLICE® 2100™ integrates VoIP and TDM functionality into a slim (1U) platform. Featuring REDCOM's exclusive TRANSip™ technology, SLICE 2100 offers up to 1,000 IP subscribers per unit (stackable up to 2,000 IP subscribers per system). Offering exceptional interoperability, SLICE 2100 is a cost-effective single-unit transition to VoIP. SLICE 2100 maximizes network assets by maintaining connectivity with voice mail, GSM, operator services, and satellite networks, while its TDM interfaces preserve your customers' legacy equipment. Its full range of capabilities addresses customer needs and helps you counter low-cost competition. All of this in just 1U. Only from REDCOM.

See us at IP Possibilities, Booth #608 and the WTA Spring Meeting

---

+1.585.924.6500 sales@redcom.com **www.redcom.com**

REDCOM®

Contents

Volume 11/Number 3 March 2008

What's On TMCnet Right Now?

To stay current and to keep up-to-date with all that's happening in the fast-paced world of IP telephony, just point your browser to www.tmcnet.com for all the latest news and analysis. With more than 16 million page views per month, translating into more than 1,000,000 visitors, TMCnet.com is where you need to be if you want to know what's happening in the world of VoIP.

Here's a list of several articles currently on our site.

IT Budget Strategies: Shaping Voice Initiatives in 2008

As I made my year-end visits to key customers and prospects last December, almost every person I met was working on his or her 2008 IT operations budget. Even though it appears the U.S. economy is on the cusp of a recession, no one I saw used the three little words technology vendors dread to hear — "IT budget slash."

www.tmcnet.com/1673.1

The Service Provider Dilemma

Whether offering a bundle or a standalone service, operators are faced with a fundamental dilemma that cannot be ignored: Is true value defined by network infrastructure and ability to deliver reliable connectivity, or does it lie in the services that can monetize directly from subscribers? Just looking at the business market, there were a few strong clues at ITEXPO in Miami.

www.tmcnet.com/1674.1

The Who, What, Why, and How of Business UC

I just read yet another article defining Unified Communications, in NEC Newslink, a quarterly report for NEC distribution channels, attempting to explain what UC is all about. What was most interesting about this piece was that it quoted several different definitions of UC promoted by leading industry technology developers and analysts. The fact that UC is, indeed, that complex, that it requires everyone who talks about it to first define it, demands attention.

www.tmcnet.com/1675.1

Picking From the Plethora of Hosted VoIP Providers

The number of companies launching hosted VoIP offerings is increasing exponentially — with everyone from start-ups to ISPs jumping on the bandwagon and hoping to get a piece of the action. And it's no wonder, since the action is predicted to be huge. According to AMI Partners' 2007 survey of small businesses, hosted VoIP spending is expected to increase from $236 million in 2006 to $1.4 billion in 2010.

www.tmcnet.com/1676.1

Moving From a Tactical to a Strategic WAN Optimization Approach

The need for WAN optimization controllers (WOCs) has emerged in the past few years as a way to address application performance hurdles in selected portions of the network. Enterprises today tactically deploy WAN optimization controllers in sites that exhibit poor end-user experience for networked business applications. Such an opportunistic approach has great advantages as it enables businesses in a significant number of cases to get immediate benefits in sites where the technology is deployed.

www.tmcnet.com/1677.1

TMC's Whitepapers of the Month

Visit TMCnet's Whitepaper Library (www.tmcnet.com/tmc/whitepapers), which provides a selection of in-depth information on relevant topics affecting the IP Communications industry. The library offers white papers, case studies, and other documents that are free to registered users.

SIP Trunking Benefits and Best Practices

While some see SIP as just voice, SIP trunking can also serve as the starting point for the entire breadth of real-time communications possible with the protocol. By extending the SIP capabilities of the corporate network outside the LAN, satellite offices, remote workers and even customers can use VoIP and other forms of real-time communications applications to break down barriers of geography to share ideas and increase productivity.

www.tmcnet.com/1678.1

The "BRAIN" Model of Intelligibility in Business Telephony

Despite modern digital trunking and switching technology, voice degradation remains an everyday problem. Why? Analog loop lengths, building wiring, variable line equalization characteristics, poor handset and speakerphone designs, mixed networks, paper shuffling, pen tapping, fan noise, and a host of other issues are still with us, even in the digital age. What can you do?

www.tmcnet.com/1679.1

SIP Conferencing/Collaboration

Businesses recognize that having access to easy-to-use conferencing resources speeds up collaboration efforts with clients and suppliers. Whether using a traditional TDM PBX, an IP PBX or a hosted service provider, SIP is seen as a key technology going forward to help tie organizations together and dramatically reduce the costs of conferencing.

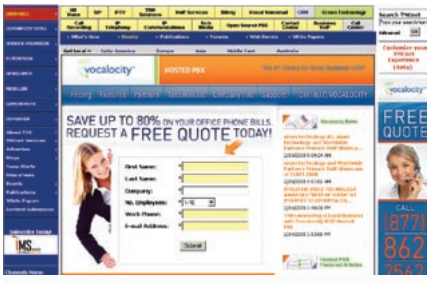
www.tmcnet.com/1680.1

This Month's Featured Channels

Hosted Asterisk Channel

www.tmcnet.com/channels/hosted-asterisk

Hosted PBX Channel



www.tmcnet.com/channels/hosted-pbx

Free Video Conferencing Channel

www.tmcnet.com/channels/free-video-conferencing

PAETEC WHOLESALE MARKETS

Systems, Infrastructure, and Product *unified* to drive business results and build equity for Resellers and Service Providers.

SYSTEMS

- Automated online ordering and provisioning
- Bulk loading capabilities and automated service utilities
- Online status reporting
- Award winning customer and engineering support

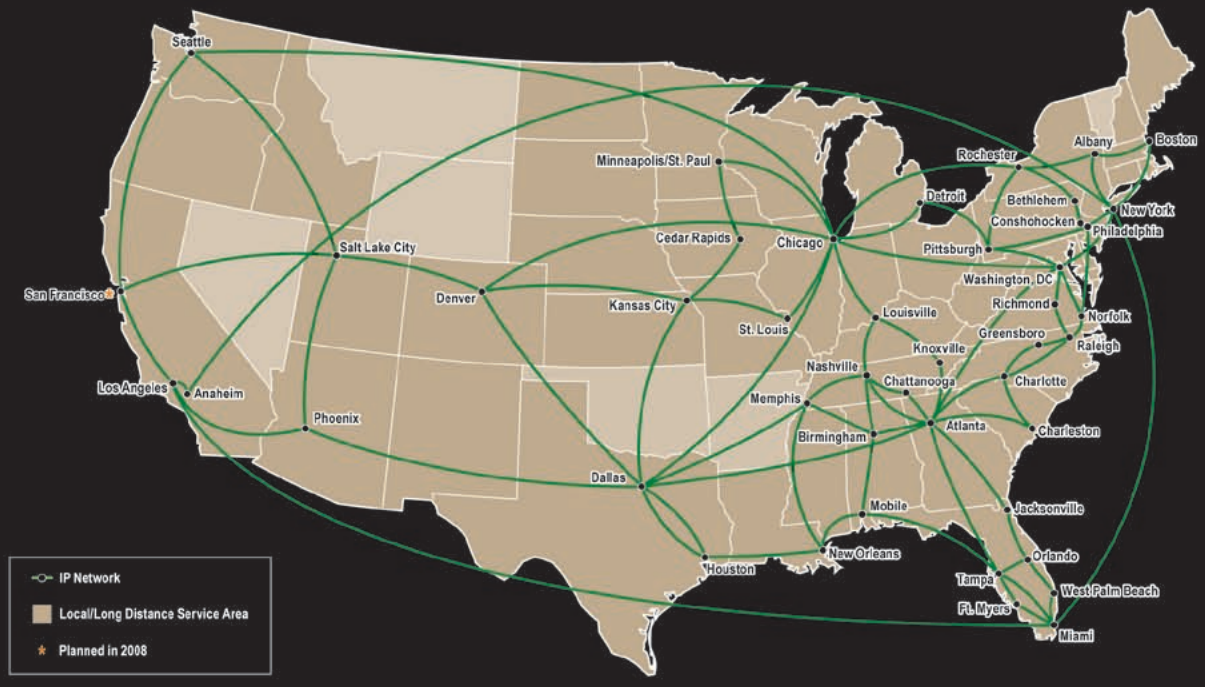
INFRASTRUCTURE

- Best-in-class VoIP network components
- Industry-leading MPLS VPN backbone
- Dedicated network operations and data centers
- Extensive TDM footprint with switch diversity

PRODUCT

- TDM origination, access, termination, and transport
- IP-based aggregated DID and termination
- Private label hosted VoIP and vast IP PBX portfolio
- Internet, VPN, and global market expansion solutions

Our objective is to help our clients grow their business faster by enabling them to spend more time selling, and less time managing the customers they already have.



Visit PAETEC at these upcoming shows:

Channel Partners Spring - Las Vegas - 3/10 - 3/12/08 - Booth #1301

VON Spring - San Jose, CA - 3/18 - 3/20/08 - Booth #536

personalizing business communications

www.paetec.com

PAETEC

Contents

Volume 11/Number 3 March 2008

Columns

Feature Articles

Departments

Cover Story

Special Feature

We Transcribe Voicemail!

Try it Absolutely FREE For One Week

SimulScribe automatically converts voicemail into text and sends the transcription to your mobile phone, BlackBerry, email enabled Smart Phone and/or email account.

You can sign up for SimulScribe online and trial the service free for seven days.

SimulScribe has the largest voicemail-to-text carrier integrator base. If you are a carrier and are interested in offering SimulScribe to your customers contact Michael Green at mgreen@simulscribe.com or (866) 351-1856 x305.

go to www.simulscribe.com

SimulScribe™
read your voicemail.℠

visualvoicemail.tmcnet.com TMCnet™

By: Brough Turner

Mobile Video-on-Demand, not Mobile TV

There is a lot of buzz about Mobile TV, but the term is ambiguous. Sometimes it means broadcasting television to mobile handsets and sometimes it means mobile video-on-demand with content that includes TV clips. The difference is critical.

Operators in many regions are building broadcast services. This means buying new spectrum and building new radio infrastructure. Broadcast standards include Digital Video Broadcasting — Handheld (DVB-H) in Europe, multiple standards in Asia and elsewhere, and Qualcomm's MediaFLO in America. Besides significant infrastructure investments, these services require new handsets which take time to get adopted. So there's been a lot of talk but little action, so far.

A more fundamental problem: the broadcast era is nearly over. When TV became popular in the 1950s, wireless technology was primitive and storage was non-existent, so people were happy with a few channels on fixed schedules. With cable, we got several hundred channels, with TIVO we set our own schedules, and with the Internet we see the future is any video, on demand. The only continuing need for broadcasting will be live coverage, of sports or breaking news, for example. So it's a questionable time for big new investments in broadcast networks.

But broadcasting to mobile handsets has another problem. Many viewing opportunities occur at odd moments and last for relatively short intervals — you are waiting at a bus stop, or riding in a train or taxicab. So you need video-on-demand and short video segments, sometimes called "mobisodes." And, by the way, these use existing 3G infrastructure.

What's actually working? The U.S. has perhaps 250 million mobile subscribers today. According to Nielsen and M:Metric estimates from mid-2007, over a quarter of U.S. mobile handsets were video capable, but only a small percentage of those subscribed to data services and used their video capability.

Of those actually using mobile video-on-demand, the most popular content categories are music videos, movie trailers, weather, sports action clips, comedy videos, cartoons and amateur video shorts. Note the strong preference for short format videos!

Another interesting result is that viral video viewing far exceeds the demand for content from the carrier's WAP deck. 85% of mobile video viewers watched content sent or pointed out by a friend or family member while only a third had watched content offered by the operator. The missing ingredients were YouTube (News - Alert), which only became mobile video-enabled in January 2008, and easy access to content, like YouTube, that's outside the operators' walled gardens.

So forget mobile TV broadcasting and think video-on-demand. Then throw open the walled garden. What people want is mobile, on-demand access to the broadest possible set of video clips and easy ways to share cool content with family and friends. IT

Brough Turner is Senior VP of Technology, CTO and Co-Founder of NMS Communications (www.nmscommunications.com).

Bill Your VoIP Services *in RECORD TIME!*

Our goal is to help minimize your risk and maximize your business potential.

Start billing VoIP services quicker with OMNIbill™

Profitec has worked with several "Out-of-the-Gate" VoIP providers who need to start generating revenues in a hurry. Like a finely tuned athlete requiring high tech training, we can help you accomplish more with limited resources. We can provide hosted solutions which can reduce or eliminate your capital investment. You can even leave the coaching to us. We can offer you a pool of available personnel to support your back office needs which can quickly help you launch your new business allowing you to focus on your sales and marketing strategies.

Profitec and OmniBill provide a solution that works

- Modest start up expenses and low minimums
- Accurate, reliable and cost effective service bureau billing
- Supports traditional voice services as well as new technology services like VoIP, DSL and Broadband
- More than 20 years of experience
- VoIP ready billing solution
- True product bundling and integrated invoicing
- Available as a hosted or on-site OSS

PROFITEC®

Profitec Billing Services

203-679-7010 • www.profitecinc.com

By: Michael Stanford

How do I call thee? Let me count the ways...

There are now several ways to make international calls from your cell phone without paying typical absurdly high rates. They all use Internet VoIP for the long haul part of the call, but there are three main ways they get from your phone to the VoIP gateway: the 3G data channel, WiFi or the cellular voice channel.

For now the 3G data channel is marginal for VoIP performance, since the latency tends to be high, and in any case metered 3G data plans can limit your savings.

If you have a dual-mode (WiFi plus cellular) smartphone, you can put a client on the phone and make VoIP calls over the WiFi data network. SIP clients are available from numerous vendors, and some phones, like the Nokia Eseries and Nseries, even have a SIP client built-in. If you prefer Skype (**News** - **Alert**) to SIP, Fring provides a thin client that connects back to a server which runs the Skype protocol. Not all dual-mode phones support these options; Windows Mobile and Symbian 60 phones are among the most compatible.

But dual-mode phones are relatively rare, and WiFi access is intermittent. More universal are the VoIP-based services that use the regular cellular voice connection to get to a local number, then route the international call over the Internet. There are many such services that you can use by dialing an access number, but dialing is a hassle. If your smartphone supports it, you can download an application that removes the pain by invisibly using the access number whenever you make an international call. This appears to be how MobileTalk and MyGlobalTalk work.

Several services convert the access number requirement from a nuisance into a feature in an ingenious way that doesn't require a smartphone or software download. For example, you tell Rebtel (**News** - **Alert**) which international numbers you dial frequently, and Rebtel associates a local access number with each one. When your cell phone's caller ID lands on that access number, Rebtel knows to connect it to the associated international number. So for each of your international contacts you simply program a local number into your dialing directory.

Jangl and Jaxtr (**News** - **Alert**) work in a similar way, but with a social networking twist. You have a 'call me' icon which you put on your emails and web pages. When somebody clicks on it, the service requests their phone number, then dials both parties and connects them. Each party captures the caller ID of their local gateway, and can use it to call each other back later. Neither party needs to give out their real phone number to web contacts. IT

Michael Stanford has been an entrepreneur and strategist in Voice-over-IP for over a decade.

Syspine

A Microsoft Response Point Phone System

Microsoft® Response Point™

Small Business Communications *Like Never Before*

Syspine — Top choice among businesses

Voicemail to e-mail forwarding

Voice Dialing

Microsoft Outlook Integration

Ease of Installation

For more information, please visit **www.syspine.com** or contact us at **syspine@quantatw.com**

Buy online at http://www.cmptel.com/buy

Inside Networking

By: Tony Rybczynski

UC Software-Centric Unification

Everyone is talking about unification of the user experience, making it easy to escalate communications from point-point IMs to telephony to video to rich multimedia conferencing. However, if unification only takes place at the client level, you may still be faced with a complex set of disparate systems in the back end: voicemail, email, audio conferencing, web conferencing, video conferencing, IM/presence and telephony.

In addition, the whole industry is moving towards integration of unified communications into business applications and processes. This is all about decreasing the human delay that today slows down these processes. This is truly transformational.

Unification of the UC infrastructure around software is critical from both business and IT perspectives. The ability to integrate unified communications with business processes can be severely hampered, unless the unified communications 'application' can flexibly integrate with business applications. The business case of unifying the client experience can be blown away, if traditional technology silos are maintained in the IT infrastructure.

The IT industry has developed an open framework to provide a flexible building block approach to application development. It's called the Service Oriented Architecture or SOA. SOA is based on a style of architecture that uses loosely-coupled services and components, and provides a modular 'develop once, and re-use many times' approach to application development. A method for implementing SOA is Web Services, an extremely pervasive and widely adopted technology. Adopting a SOA and Web Services framework for communications enablement of business processes allows enterprises to fully leverage a large developer ecosystem for business advantage.

This probably sounds very reasonable to you. But one notable vendor has adopted a network-centric vertically integrated approach, which is diametrically opposed to a software centric approach. Such a network-centric approach creates interdependencies between the network infrastructure and applications that could make communications enablement difficult.

Presenting a consistent set of services (e.g. click to connect, notification, presence queries) allows business processes to be communications enabled, in a way that is independent of the underlying infrastructure. Furthermore, these services can be defined in such a way as to be provided by infrastructures from many vendors and spanning enterprise and service provider environments.

Enterprises should assess how various unified communications suppliers can unify the user experience with tight integration with desktop applications and how they propose to unify the unified communications IT infrastructure. A software-centric approach to unification of the unified communications infrastructure provides enterprises the agility to accelerate application innovation and leads to the next level of data center consolidation. IT

Tony Rybczynski is Director of Strategic Enterprise Technologies at Nortel. He has over 20 years experience in the application of packet network technology. For more information, please visit www.nortel.com.

Tech Score

By: Jeff Hudgins

What's next for VoIP Media Gateways?

Since the introduction of VoIP back in the mid 1990s, VoIP Media Gateways have been deployed to make the transition between VoIP and PSTN networks. After exploring this seemingly mature technology I discovered that the VoIP media gateways of tomorrow are not your Grampa's gateway. While cost remains at the top of the product selection criteria, more and more functionality is being poured into the media gateway's hardware and software features.

The standard gateway features list used to include things like voice, video, and fax decompression, call routing, signaling control, and packetization. More recently, we now see added features such as integrated SS7 inside the gateway and "any-to-any" signaling.

The Dialogic (News - Alert) IMG 1010 Integrated Media Gateway includes integrated SS7 ISUP signaling which can be mapped to SIP, SIP-T or H.323 to meet a carrier's requirements for SS7 connectivity into a VoIP network. The IMG 1010 can terminate SS7 ISUP A-links or F-links, and supports a full DS3 of bearer traffic (CICs). This is all provided in cost effective 1U, single box solution, which can reduce capital and operational expenses for carriers.

The IMG 1010 is able to translate between multiple signaling protocols when meeting a carrier's media gateway needs. Supported signaling includes SS7 ISUP, ISDN PRI and CAS for circuit networks and SIP, SIP-T and H.323 for IP networks. Signaling conversion can take place between TDM-IP, IP-IP or TDM-TDM network configurations. "The Dialogic IMG Integrated Media Gateway product family provides an excellent value proposition for carriers who are building converged VoIP networks due to its robust suite of signaling options," says James Rafferty (News - Alert), Product Line Director for Integrated Media Gateways at Dialogic Corporation. "The IMG 1010 is installed at over 50 carriers for a variety of applications which include Wholesale VoIP, Retail VoIP and enhanced services. The IMG 1004 has recently been introduced and offers a low-density gateway solution for carriers that need to support small POPs or for Call Center applications."

"Carriers have selected the IMG 1010 based on factors that include integrated SS7 ISUP signaling, any-to-any network connectivity and IP-IP transcoding," Rafferty says. "The compact 1U size of the IMG products is well-suited for racking and stacking multiple IMGs. A network can be configured using Dialogic's server-based Gate Control Element Management System."

Final Score

We will continue to see enhanced services inside future VoIP Media Gateways that will offer Carriers faster time-to-revenue at a lower cost of ownership. It is clear that the Dialogic IMG is setting the pace. IT

Jeff Hudgins is VP of Engineering at Alliance Systems (News - Alert) (www.alliancesystems.com).

VoIP Peering

By: Hunter Newby

The Old Frontier Ahead of Us

Discovering treasure is a rewarding experience in more ways than one. It's something of value that others seek as well, but you are lucky enough to have found it. Finding hidden treasure is even more exciting. Hidden treasure implies that someone or something is intentionally or inadvertently trying to keep it from view. It is even possible for great treasures to be hidden in plain sight by nothing more than the veil of unawareness.

For many years now Internet Protocol (IP) has been talked about and held in the highest regard as a technology of the future. The future that our predecessors spoke of is our current day. The uses for IP were at one time seen as things that did not exist, or that would be created and change the way applications and communications functioned. All of this has proven to be true, but as much as IP has created new things, it also improves old ones. The old things are still what they are, only better.

Call centers have been around for decades. These are places where people acting as processors of information receive inbound information for routing and resolution as well as generate outbound contact with other people for sharing and collecting information. Call centers can provide support for products and services as well as generate direct sales. Their purpose in the world is critical, but the value is lost in translation somewhere.

The term "Call Center" is to the point, but not very flattering. Part of that has to do with the word "call". Ever since IP and the Internet came along, anything that was "web-based", or has an "e" or an "i" in front of it (ecommerce, ibanking) became all the rage. Voice and calling services became old-school almost overnight. Along came VoIP, but the Internet got most of the credit even though it has little to nothing to do with Voice over Internet Protocol. Unless of course the voice call goes over the Internet, but that is not a given.

Through all of this transformation of "everything to IP" possibly one of the greatest opportunities for Voice Peering has been overlooked – a Call Center Grid. The reasons are numerous, the need is present and, best of all, almost every tool necessary is already built and available. There are only two things missing, awareness and execution. For those of you in the call center industry, what is about to happen is that magnificent transformation to unified IP communications that has already had an impact on the rest of the world. Treasure found. IT

Hunter Newby is chief strategy officer for telx. For more information, please visit the company online at www.telx.com.

Enterprise View

By: Max Schroeder

SIP, SIP Trunking and FoIP — The Miami Perspective

FaxCore (News - Alert) was privileged to exhibit at an innovative pavilion at ITEXPO East 2008 – the Disaster Planning Communication Forum (DPCF) Pavilion. During the course of the event I spoke with a lot of attendees as the show attracted a significant amount of floor traffic. The most frequently asked question was, "Does your product support FoIP using a VoIP provider?" The answer is no, but that's not because of any FaxCore product limitations. Frankly, the state of the service provider networks is such that they're not ready to support this type of solution. Naturally, the next question was, "When will it be ready?" I needed some guidance on this question so I consulted Marc Robins and Richard Shockey of the SIP Forum (News - Alert).

The Forum is a non-profit IP communications industry association and has a plethora of skilled professionals from the leading industry companies. It is not a standards-setting body but works closely with the Internet Engineering Task force which defines the core SIP protocol. The Forum also operates the SIPconnect Compliant Certification Program and sponsors SIPit interoperability test events.

Richard Shockey (News - Alert), Director and Distinguished Member of the Technical staff at NeuStar and Chair of the SIPforum Technical Working Committee said, "The SIPforum has sponsored the development of the SIPconnect 1.0 specification for the interconnection of IP-PBX systems and service provider networks. Though the needs of the industry have initially focused on voice, fax is an integral part of the communications landscape and helping to facilitate FoIP in service provider's networks is certainly something we should actively look at."

He added, "The SIP Forum is driven by the direct actions of the members with respect to working on specific task groups. I strongly encourage companies that want to facilitate SIP and SIP trunking for FoIP to take an active roll in the SIP Forum now."

Next, I sought out the advice of Marc Robins, the SIP Forum Managing Director. Marc has years of experience as an advocate of new IP Communications technologies, so he is in a unique position to comment on how to evolve technical innovations. Marc commented, "The SIPconnect 1.1 task group is newly-formed and active and the SIP Forum is currently soliciting input from members. This is the perfect time to join the Forum and take an active role in evolving FoIP communications interoperability."

So, if you are seriously interested in facilitating FoIP in service provider's networks, contact the SIP Forum site (www.sipforum.org) and sign up for an individual Participant or corporate Full Membership. IT

Max Schroeder is the Senior Vice President of FaxCore, Inc. (www.faxcore.com nschroeder@faxcore.com).

Packet8
Internet Phone Service

Join the Packet8 VoIP Services Community!

VoIP Services For SMB & Residential

Whether you are a start up or an established company, a one-person business or an organization of 100 employees, a VoIP-hosted phone solution with a lower TCO, reduced complexity and more advanced communication features is the obvious and smart choice.

But, one size does NOT fit all! As such, TMCnet has joined together with one of the industry's leading IP communications service providers, 8x8, Inc., originator of Packet8 Internet Phone Service, to educate the business and residential communities on the advantages and efficiencies of VoIP-hosted phone service.

Sponsored By:

Packet8
Internet Phone Service

Powered By:

TMCnet™

Log On Today!

voipservices.tmcnet.com

By: Rich Tehrani & Max Schroeder

Continuity Planning 101 — A Continuing Educational Series

DPCF Pavilion News from Miami

An exciting new addition to ITEXPO East 2008, was the Disaster Planning Communication Forum (DPCF) Pavilion, which provided a cost-effective location to showcase products, particularly new releases. Two recent product releases displayed in the pavilion are covered below.

Interview with Craig Steen, President of IgeaCare, USA, Inc.

RT & MS: Why did IgeaCare exhibit at the DPCF Pavilion?

CS: One reason we joined the forum is that we identified it as an opportunity to educate ourselves and the public about the growing need for advanced business continuity applications and services. Our market thrust is focused on 3 areas: municipal governments, educational institutions and healthcare providers.

RT & MS: You introduced a new product, The Campus Alert which is an add-on module to your flagship product The Emergency e-Response system. What was the attendee reaction?

CS: The response was great, particularly with educational institutions having prior experience in this area. Camus Alert addresses 3 critical areas for first responders to manage an emergency:

- Establish a plan that integrates the institution, law enforcement and the community.
- Intelligent and structured execution of the plan by zone.
- Full real-time auditing and reporting.

Interview with Marc Bielinski, Senior Systems Engineer, A2000 Network Solutions, Inc.

RT & MS: What was the primary reason for exhibiting in the DPCF Pavilion?

MB: The primary goal was to showcase our new T1, E1, or DS3 failover switch for the carrier services market place.

RT & MS: How was the product received by the attendees?

MB: We experienced terrific aisle traffic interest regarding switching capabilities for true "Hands Off" T1/E1/DS3 movement of services in the event of a primary equipment failure. ITEXPO allowed us to demonstrate the features and functionality of the failover switch to potential "new" customers and discuss how it would benefit them in their network designs. In fact, we received a lot of attention from other exhibitors interested in integrating our solution with their products. Frankly, our products address a unique market application for business continuity and failover.

TMC has included a DPCF Pavilion in the floor plan for ITEXPO West 2008. If you are interested in exhibiting please contact: Joe Fabiano, Global Events Account Director, fabiano@tmcnet.com

For additional information please go to www.tmcnet.com/channels/disaster-planning/ or contact Max Schroeder directly at (maxschroeder@tmcnet.com). IT

Max Schroeder is the Senior Vice President of FaxCore, Inc. (www.faxcore.com nschroeder@faxcore.com).

Rich Tehrani is the President and Group Editor-in-Chief at TMC.

By: Richard "Zippy" Grigonis

Matisse Networks (News - Alert) Packetizes the Optical Layer with OBS

As high-bandwidth carrier metro Ethernet, E-LAN services and multimedia triple play bundles become widespread, metro aggregation networks are gravitating toward the use of optical Ethernet transport. Until recently, advanced metro optical transport was based on a combination of Ethernet switches and ROADMs (Reconfigurable Optical Add/Drop Multiplexers). Current limitations of these technologies, however, constrain Ethernet interfaces to 10 Gbps and ROADMs to an underlying older circuit-based design. The only way to build networks with more than 10 gigabits of bandwidth has involved expensive Dense Wavelength Division Multiplexing (DWDM) technology to create point-to-point circuits for every path across a network, which his both expensive and cumbersome.

Now, however, Matisse Networks (www.matissenetworks.com) offers Optical Burst Switching (OBS), which gives you both the efficiencies of Ethernet packet switching as well as the vast bandwidth of DWDM. OBS optical burst transponders communicate directly with all destinations across a metro network, thus obviating the need for optical circuits to be pre-provisioned, and expensive circuit transponders no longer need be dedicated for every communication path. This simplifies network design and allows for the construction of pure packet metro networks.

Matisse's EtherBurst distributed layer-2 switch consists of SX-1000 Ethernet Service Nodes and PX-1000 Photonic Nodes. The PX-1000 Nodes are deployed in a metro ring, and provide fully automated optical amplification and power management of the photonic layer. The SX-1000 Nodes provide 1 Gbps Ethernet (1GbE) and 10 GbE interfaces. Each PX-1000 Photonic Node connects multiple SX-1000 Ethernet Service Nodes to the photonic layer. Indeed, up to 32 SX-1000s may be connected to a metro ring of PX-1000 Photonic Nodes, and each SX-1000 supports up to two Ethernet modules and up to two TAP modules.

Every one of the PX-1000 and SX-1000 Nodes includes an optical supervisory channel (OSC) that's used to manage communication between the PX-1000s and SX-1000s on the ring. The OSC also can deliver efficient layer-2 multicast service delivery, something that comes in handy when supporting IPTV (News - Alert) broadcasts.

In the study, "Total Cost of Ownership Analysis of Matisse Networks' EtherBurst Optical Switch," by Network Strategy Partners (www.nspllc.com), EtherBurst operations are 46 percent less expensive than those of the ROADM (News - Alert) architecture, mostly because of savings on service contracts which are tied to EtherBurst's lower equipment costs.

Matisse Networks has an intriguing take on optical Ethernet. Let's see how things work out for them… IT

Richard Grigonis is Executive Editor of TMC's IP Communications Group.

TMCnet Presents:

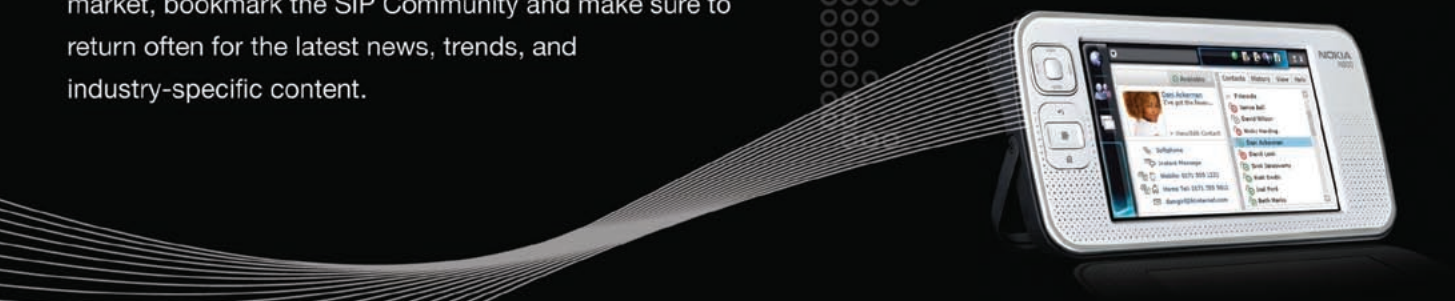
SIP Community

Connect. Communicate. Collaborate.

Today's IP Communications world is moving fast. Innovation is being driven on many fronts, and at the heart of so much of this activity is Session Initiation Protocol, otherwise known as SIP.

SIP is the engine behind the notion of Open Communications. The idea or concept of Open Communications – integrating open, standards-based technology with leading brands of telephony platforms, devices and the latest in voice, video and data applications – is fueling a multitude of innovative SIP-based multimedia applications such as VoIP and Video over IP, IM and Presence, Collaboration and more.

The SIP Community is designed to serve as a central information resource for this fast-moving world of SIP-based IP Communications. To stay on top of the SIP market, bookmark the SIP Community and make sure to return often for the latest news, trends, and industry-specific content.



- SIP Latest News
- Enterprise Communications
- Service Provider Solutions
- SIP and Open Standards
- SIP Featured Articles
- Product Showcase

Sponsored by COUNTERPATH

Check out our SIP Community today at: http://sip.tmcnet.com

NEWS ANALYSIS

Cable Networks Sue FCC Over "Must Carry" Rules

By: Gary Kim

Six national cable networks — C-SPAN, Discovery Communications, The Weather Channel, TV One, A&E Television, and Scripps Networks — have filed a lawsuit against the Federal Communications Commission challenging the legality of "dual must carry" rules. Those rules require cable operators to carry on their networks both an analog and digital version of programming provided by a local commercial broadcaster, for a period of three years after February 2009, when the over-the-air broadcasting system changes to an all-HDTV format.

The current rules allow cable operators to avoid the dual format if they have provided all their customers with digital decoders. Local broadcasters also have the option of negotiating with cable operators for payment for use of the local signals, as an alternative to "must carry," which allows the local cable company to retransmit the broadcast signal without payment of fees, in return for carriage.

As a rule, broadcasters support the rules while cable operators oppose the rules. As always is the case, commercial concerns underlie the strife. Cable operators object to the dual must carry rules as this requires that channel capacity be provisioned twice for a single broadcaster, one digital and one analog version. And since channel capacity is a scarce resource, cablers would rather deliver one feed rather than two.

Broadcasters have the opposite point of view, for obvious reasons. Channels are "shelf space" and having two feeds means "two shelves" rather than one.

The FCC's thinking on the matter is that cable or other providers might decide to carry a significant amount of programming in analog format, for business reasons. And the dual carriage mandate therefore is a consumer protection measure.

First, the availability of an analog tier means some customers can continue to watch much of their programming the way they do now, using a cable-compatible TV and no decoder. That's seen as a consumer value: no immediate disruption of viewing and no additional cost.

Oddly enough, cable companies will voluntarily carry two feeds of the highly-viewed local broadcast stations. The reasoning is simple enough. They want to provide viewers with the popular content viewers want. And that generally includes the top four or five broadcasters in a local market.

But cable operators don't want to be required to carry every local broadcaster's feed in two formats, as some of those stations might not have high viewership. Again, the business logic rules. Cable operators do not earn advertising or get paid carriage fees for retransmitting a local broadcast signal. It is a cost of doing business (an important cost), not a revenue item.

If a cable operator can redeploy bandwidth in some other way, it might earn carriage fees from a smaller cable network and create a local advertising opportunity for itself. The cable operator might otherwise deploy that bandwidth for new services (voice, on-demand programming or broadband access).

From the cable operator perspective, it is one thing to voluntarily program a local broadcast feed in digital or analog format. It is quite another to have the programming decision taken away and given to the FCC. There are sound business reasons for retaining an analog tier, at least for a while.

No cable company really wants to be in the position of telling a current customer they no longer can get service unless they buy a decoder, a new HDTV set or rent a decoder from the cable company, for every TV device in the home. Again, the issue is not the analog tier, but the ability to program the analog tier.

Second, as decoders are expensive, no cable company wants to put that incremental capital into a home that isn't buying incrementally more services. And basically, the HDTV transition means some customers have to be equipped with decoders just to keep viewing what they currently have. The "more cost, no new revenue" proposition doesn't make business sense.

The current "must-carry" rules were enacted in 1992, largely for public policy reasons: as more and more viewers shifted to cable, there was concern that the over-the-air broadcast business would be harmed. Must-carry rules were seen as a way of ensuring broad access to broadcast programming and diversity.

Digital must-carry is a specific concern for cable programmers, as capacity mandated for broadcast feeds necessarily makes it harder to gain carriage for the affiliated networks any single company would like to provide. In the past, ABC has been able to use its leverage as the owner of ESPN (News - Alert) to gain carriage for other ABC cable networks with less potential viewership. That task is harder if there is less shelf space.

Telcos might take a different path, as their "all digital" signal format means a decoder has to be provided to each customer in any case. In those cases, video providers are free to carry the single digital feed. Verizon Communications is taking this path, for example.

The National Association of Broadcasters opposes any modification of this rule as it represents smaller broadcasters – ethnic language and religious broadcasters, for example – who benefit from must carry. If the rules are modified, many smaller broadcasters who will still be on the digital tier will not be viewable on the analog tier, which over time will carry only the most-popular programming. IT

Gary Kim is a TMCnet Contributing Editor.

CounterPath Acquisitions Expand Markets, Position Company in FMC

By: Charlotte Wolter

Two years ago CounterPath Corp. was, so to speak, a one-trick pony, a company providing the leading SIP soft phone for consumer VoIP services but little else.

Two years and several acquisitions later, CounterPath has broadened the markets for its Windows-based software, which now include fixed and mobileVoIP for consumers, enterprises and service providers as well as fixed-mobile convergence (FMC).

Construction Job

CounterPath has built a wider focus on a spate of acquisitions in 2007 and, especially, early 2008. Before, the company had modest but steady growth in the narrow consumer VoIP market. Long-term prospects were less certain in a market that features giants, such as Skype, Yahoo! Inc. and Microsoft Corp.'s MSN, with millions of users for their consumer soft clients.

Nevertheless, CounterPath has a broad customer base for its consumer clients that includes many of the largest voice service providers in the world, such as AT&T Inc., Verizon Communications Inc., Vonage Holdings Corp., BT Group PLC, and Deutsche Telekom (News - Alert) AG. Telecom equipment vendors, such as Cisco Systems Inc., Alcatel-Lucent and Nortel Networks Inc., also used the CounterPath soft phone products in a variety of applications.

In June 2007 CounterPath announced the acquisition of NewHeights Software Corp., which brought an enterprise soft phone and IP application server. However, the most significant aspect of the NewHeights deal is that it brought new management — NewHeights CEO Greg Pelling became CEO of CounterPath, and founder Mark Bruk moved to Vice Chairman of the company's board of directors — and a new investor. Terence H. Matthews, Chairman of Mitel Corp. and private-equity firm, Wesley Clover (News - Alert), became the Chairman of CounterPath, and Wesley Clover invested in the company. After the deal CounterPath was debt free, and had access to $8 million in cash and cash commitments.

After the New Year, the company moved quickly on two other acquisitions. On January 29, 2008, CounterPath announced an agreement to acquire FirstHand Technologies Inc., a provider of client software for FMC between enterprise PBXs and mobile phones. The company's software enabled mobile phones to use PBX features, including direct dialing to extensions, and for mobile features to be accessed from the desktop.

A week later, CounterPath announced the acquisition of BridgePort Networks Inc., a provider of FMC systems for service providers. CounterPath BridgePort Networks and Oberthur Card Systems had collaborated a year earlier on a fixed-mobile convergence soft client, called MobileSTICK, which was a SIP soft client and supporting software, plus aGSM SIM card packaged in a USB flash drive. When plugged into a PC, the USB device launched a soft phone for calls over WiFi networks while providing a GSM connection when WiFi broadband as not available. BridgePort had seen investment of more than $40 million to develop its fixed-mobile convergence technology assets, and the acquisition brings CounterPath multiple technologies for the service-provider FMC space. BridgePort has a server component that acts as a gateway between a mobilesoftswitch network and a SIP network. "What BridgePort gives is to address mobile operations and to give a solution that can bridge features from the mobile network onto the fixed network," says Jason Fischl, CTO, CounterPath.

These acquisitions take CounterPath "into grounds where we can go into all sorts of businesses very quickly and generate enough revenue today to pay the bills," says Pelling. "It is one thing to be a consumer client, but it is totally different to be an enterprise, small to medium-sized business and mobile FMC offering."

CounterPath and FMC

CounterPath's reinvention of itself includes strong moves into fixed-mobile convergence, especially for service providers, but CEO Pelling is cautious when asked about the growth of the FMC market. "None of us have a crystal ball," he says. "If we really move into a recession, then it will be pushed out a few quarters. But we think we see fixed-mobile convergence start late this year or early next year" in North America.

Opinions on the prospects for fixed-mobile convergence vary. Philippe Winthrop, Research Director, Aberdeen (News - Alert) Group, a research and consulting firm that focuses on enterprises, says, "I think FMC is the next great thing in enterprise mobility." Fixed-mobile capabilities, "will be for voice what push e-mail was for your desktop email," Winthrop says. 'It doesn't matter where you are. Your mobile is your desk phone." He adds that the convenience of one mailbox and ubiquitous communication whether in or out of the office will outweigh additional costs for enterprises.

On the other hand, Keith Nissen, principal analyst, In-Stat (News - Alert), a division of Reed Elsevier, says fixed-mobile convergence is likely to reduce revenue from enterprises. "I don't see that mobile operators will be pushing enterprise FMC because it will not grow revenue. It will shrink revenue."

Besides, in North America, Nissen points out, most enterprises do not subsidize mobile phones. "I could see for executives, rather than having a desk phone, they can have a mobile FMC phone to use with on-premises WiFi to make calls when in the office and it will operate as normal FMC elsewhere. That's feasible but relatively small potatoes." Rather than large enterprise, "The big market is in the small business, those who run a business out of the home or are an owner. There they would like to have one phone and be able to least-cost route the calls wherever they are," says Nissen.

Whatever the outcome with FMC, CounterPath is likely to use its new-found technical and financial resources to explore other opportunities, possibly venturing into platforms other than Windows. Although Microsoft dominates on the PC, Symbian, Research in Motion (RIM Blackberry) and Palm, not to mention Apple, also have large market shares in mobile phones and computing. CounterPath already provides products for Windows, as well as RIM and Symbian (with its acquisition of FirstHand), though Windows predominates and its packaged soft phones are aimed mostly at PC platforms. It will be interesting to see if CounterPath can leverage its current client products into new kinds of devices, codecs and services. IT

Charlotte Wolter is a TMCnet contributing editor. Wolter has been a technology journalist and analyst for 20 years, managing publications, writing articles and reports, and providing consultation about market trends.

www.tmcnet.com/1581.1

Enterasys Announces New 10 Gigabit Ethernet Connectivity

Enterasys Networks announced its new 10 GbE connectivity products for edge access, distribution layer, network core, and data center roles. The new connectivity solutions are complemented by the Dragon 10GbE Intrusion Detection and Prevention System.
www.enterasys.com

www.tmcnet.com/1582.1

AltiGen (News - Alert) Launches Financing Arm

AltiGen Communications has announced the launch of AltiGen Communications Finance (ACF). "Our resellers can now offer customers one point of contact to deliver a total solution: equipment, services, and financing in one package under the AltiGen brand."
www.altigen.com

www.tmcnet.com/1583.1

Verizon Business Offering Virtualization Service

Verizon Business is offering enterprise customers the benefits of virtualization while reducing the complexity of this next-generation technology. With the new managed virtualization service, businesses can provide applications to users with the same reliability as the traditional one-application-to-a-server model.
www.verizonbusiness.com

www.tmcnet.com/1590.1

Devfoundry Software (News - Alert) Launches VoIP Monitor 1.5

Devfoundry Software announced the immediate availability of VoIP Monitor 1.5. This proactive VoIP Diagnostic tool enables enterprises and VoIP service providers to easily capture, monitor and evaluate all voice and fax traffic in real-time — allowing VoIP to easily surpass the call quality of conventional phone solutions, as long as all components work together.
www.devfoundry.com

www.tmcnet.com/1592.1

Allworx Announces New 9200 IP-Phone Series

Allworx announced its new Allworx 9200 phone series, which consists of the top-of-the-line 9212, and the affordable 9202 IP-phones. The Allworx 9200 series is designed to bring a new level of simplicity and ease-of-use to the SMB market. Common calling functions that are used on a day-to-day basis (such as checking messages, conferencing functions, and moving calls via hold, redial and transfer) are now accessible via one-touch programmable keys.
www.allworx.com

www.tmcnet.com/1591.1

Vidyo Steps Out With New HD Video Conferencing Solutions

Vidyo has stepped out with a new video conferencing offering for the enterprise that makes it not only far easier and more cost effective to provide employees with video conferencing capabilities, but they also deliver HD video conferencing right to the desktop over converged IP networks — further pushing quality HD video conferencing into the mainstream.
www.vidyo.com

www.tmcnet.com/1584.1

HyperOffice (News - Alert) Announces Free Trial of Collaboration Tools

HyperOffice has unveiled the public beta of business collaboration tools that help users connect their Apple iPhone to corporate email, contacts, calendars, tasks and notes. The in-built collaboration tools offer an alternative to Microsoft Exchange, which is not supported by the iPhone. With the help of this service, business users will be able to gain access to secure corporate messaging and collaboration services, regardless of where they are.
www.hyperoffice.com

www.tmcnet.com/1585.1

Digi Cellular Router Replaces Cellular Modems in Low-Speed Applications

Digi International has introduced the Digi Connect WAN GPRS, a second generation (2G), commercial grade, GSM GPRS Class 10 cellular router that provides secure connectivity to remote sites and devices. It adds a cost optimized solution to their line of commercial grade cellular routers and Drop-in Networking solutions. Officials explained that it is ideal for applications requiring connection speeds of up to 40 kbps such as remote asset monitoring, meter reading, vehicle tracking, security and many more.

www.digi.com

www.tmcnet.com/1595.1

Neopolitan Networks Completes Full Deployment of NeoMatrix Service

An extension of Neopolitan's NeoMAN metro solution, NeoMatrix delivers Neopolitan Networks' Layer2 Ethernet solution, both domestically and internationally. Available in several major data centers across the United States, this solution allows companies to simply connect to any of the supported data centers via standard Ethernet and instantly have a connection to any of the other data centers.
www.neopolitannetworks.com

www.tmcnet.com/1586.1

Radware (News - Alert) Drives Application Delivery Innovation with First OnDemand Switch Providing Customer-focused Capabilities

Radware announced its OnDemand Switch, a new hardware platform for Application Delivery Controllers (ADC) that delivers breakthrough performance and superior scalability through an easy-to-upgrade license approach, for additional throughput and services. The OnDemand Switch is the first sustainable throughput switch with on-demand scalability allowing end-users to increase throughput levels without the need to swap-out existing IT hardware infrastructures.

www.radware.com

www.tmcnet.com/1589.1

Grandstream Networks (News - Alert) Launches New 24-Port FXS Analog Gateway

Grandstream Networks unveiled a new analog FXS IP gateway, the GXW4024. The new gateway offers 24 FXS ports with both RJ11 and 50-pin telco connectors; auto-sensing 10/100Mbps network port; carrier grade G.168 line echo cancellation; strong security protection; RADIUS support for billing processing; and TR-069 support for remote system management and provisioning.

www.grandstream.com

www.tmcnet.com/1587.1

Patton Introduces World's First IP Camera Extender

Patton Electronics announced the Patton Model 1173, the world's first IP Camera Extender. "The market trend is everything over Ethernet; Patton technology takes video-over-Ethernet faster and farther over voice-grade copper. The 1173 addresses an amazing breadth of applications."

www.patton.com

www.tmcnet.com/1588.1

ShoreTel Intros ShorePhone with Gig-E and Bluetooth Headset

ShoreTel announced its ShorePhone IP 565g, a six-line IP telephone with a high-resolution color display, Gigabit Ethernet connectivity, and Bluetooth headset integration. The IP 565g telephone seamlessly integrates communications and business processes, enabling the enterprise to be more productive as it is easier to use.

www.shoretel.com

www.tmcnet.com/1593.1

PoE Made Easy by LAN Power Systems

LAN Power Systems introduced its alternative PoE solution, which allows small and mid-size businesses to benefit from PoE technology without having to replace their non-PoE switches. LAN Power's modular midspan power hubs use standard patch cables to connect standard Ethernet switches to their respective endpoints, adding PoE capability to the switches. The 4- and 8-port modules exceed current 802.3af PoE standards, ensuring their adaptability into future revisions.

www.lan-power.com

www.tmcnet.com/1596.1

Officescape (News - Alert) Announces Office on Demand Services at Over 650 Locations

Officescape's Office on Demand services are now available at over 650 locations within its worldwide network. Officescape's office services provide clients with the mobility, security and reliability to operate a business anytime, anywhere without the constraints of a traditional office. Officescape's Enterprise Services allow large corporations to utilize tele-office, telecommunication and tele-computing services, all on a single platform.

www.officescape.com

www.tmcnet.com/1597.1

Conference Calls with Live Interpretation Now Available

Conference Plus announced an agreement with Language Learning Enterprises, Inc., (LLE) that will bring to its conferencing customers, on-demand "live" 24-hour telephone interpretation in 150 different languages. For ConferencePlus (News - Alert) customers, the new partnership with LLE, expands their language options and makes it possible to place an instant interpretation request during a conference session.

www.conferenceplus.com

www.tmcnet.com/1594.1

Microsoft RoundTable Extends European Reach

Microsoft announced the increased Western European availability of its RoundTable videoconferencing system. Now, the next generation of videoconferencing is available to enterprises in Austria, Denmark, Finland, Ireland, Norway, Sweden and Switzerland.

Microsoft RoundTable is an all-in-one videoconferencing device that broadcasts synchronised audio and video over a standard Windows-based PC. A tabletop device, not much bigger than a traditional speakerphone at the base, it captures and provides a 360-degree panoramic view of everyone in the meeting.

www.microsoft.com

www.tmcnet.com/1598.1

VSNL Restores ME Service within 24 Hours

By leveraging its bi-directional backbone, which it has all along said differentiates it from other carriers, VSNL was able to restore service within 24 hours to a majority of its Middle Eastern customers following the severing of submarine cables. While many carriers were still experiencing complete outages, VSNL expansive undersea presence has enabled it to restore connectivity by virtue of its ownership in various cable assets.

www.vsnl.com

www.tmcnet.com/1600.1

Ceragon Demos PBB-TE over Microwave

Ceragon Networks has partnered with system vendors to successfully demonstrate PBB-TE (Provider Backbone Bridges - Traffic Engineering) protection over an Adaptive Modulation packet microwave. Since PBB-TE makes packet networks predictable, operators can efficiently manage their packet network resources and maximize their performance and ensure superb QoS for voice and video services.

www.ceragon.com

www.tmcnet.com/1599.1

Aricent (News - Alert) Expands Managed Testing Services for Mobile Operators

Aricent announced a major expansion of its managed testing services practice. Aricent's managed testing services provide complete support from strategy to implementation and across an operator's network infrastructure, device portfolio and applications, according to company officials.

www.aricent.com

www.tmcnet.com/1603.1

Personeta (News - Alert) Forms Strategic Alliance with HelloSoft

HelloSoft and Personeta have announced completed integration and interoperability testing, having agreed to collaborate on IMS/VCC initiatives to enable service providers to develop and deliver enhanced voice, data, image and multimedia applications at a faster rate, with better quality, and at a lower cost.

www.personeta.com
www.hellosoft.com

www.tmcnet.com/1601.1

Taridium (News - Alert) Unveils New Comms Startup Edition

Taridium announced the comms startup edition specifically for service providers, a single server package supporting anywhere from 200 to 500 concurrent telephone calls, as well as up to 5000 extensions — including all the standard features of the complete comms provider platform, in addition to Taridium's integrated billing solution.

www.taridium.com

www.tmcnet.com/1602.1

16 Mobile Carriers Utilize Ditech Networks' EXi Solution

Voice quality solutions provider Ditech Networks announced that 16 mobile carriers in North America, South America, Europe, Asia and the Middle East — many of them Tier 1 operators — are benefiting from audits done to their voice networks using Ditech's Experience Intelligence (EXi) solution, which is used for identifying voice quality problems caused by the caller's environment and by the mobile devices themselves.

www.ditechnetworks.com

www.tmcnet.com/1606.1

Alcatel-Lucent Announces Expansion of IP/MPLS portfolio

Alcatel-Lucent has expanded its Mobile Evolution Transport Architecture (META) with the launch of new hardware and software innovations for its IP/MPLS service router portfolio. Operators across the world can now build resilient, high-endurance network infrastructures with greater network efficiency, capacity, density, reliability, and resiliency.

www.alcatel-lucent.com

www.tmcnet.com/1608.1

Increased ROI of VoIP Infrastructure with Basis Audionet

Basis Audionet introduced its latest IP Communications soft client, which combines the various communications media in use today — VoIP, IM, video telephony, and more — into a single standalone client application — the company's new Multi-client Communications Suite (MCCS). The modular design incorporated by Basis lets customers integrate MCCS as an add-on solution to their previously existing services, allowing them to generate greater ROI from those prior infrastructure solutions.

www.basis-audionet.com

www.tmcnet.com/1604.1

Eltek Valere Announces High-Efficiency Telco Rectifier

Eltek Valere has launched the Flatpack2 HE Rectifier Module 48/2000. The new AC-to-DC power rectifier for telecommunications applications offers 96 percent typical power conversion efficiency. Because the rectifier cuts in half the power loss from today's state-of-the art power conversion technology, it reduces the power consumed — and lowers operating costs — for telco services.

www.eltekvalere.com

www.tmcnet.com/1613.1

M5 Launches Nation Partners Program to Extend its Voice as a Service Solution

M5 Networks has announced the launch

of its National Partners Program (NPP). This new program is designed to provide customers across the country with the company's voice communications offering. The Voice as a Service solution from M5 provides proactive, transparent service, business continuity beyond redundancy that includes both real-time circuit monitoring and customized emergency plans, and reporting tools that demonstrate measurable business benefits.
www.m5net.com

www.tmcnet.com/1605.1

Telco Systems Announces MEF 9 and 14 Certification

Telco Systems T-Marc 300 series and T-Marc 25x series service demarcation product lines have received MEF 9 and MEF 14 certification in accordance with the Metro Ethernet Forum (News - Alert) (MEF)-approved test plans for Ethernet services and traffic management. MEF Certification addresses the interoperability and performance issues confronted by service providers looking to deploy Carrier Ethernet services and to accelerate the adoption of Carrier Ethernet services worldwide.

www.telco.com

www.tmcnet.com/1607.1

Cisco (News - Alert) Unveils Nexus 7000 Series Data Center-Class Platform

Cisco introduced data center-class switching platforms, the Cisco Nexus Series, to meet customer demands for next-generation mission-critical data centers. Cisco notes that as the data center transitions to a more services-centric model, the network plays a pivotal role in orchestrating virtual IT resources and scaling workloads. Company officials explain that the Cisco Nexus 7000 Series was designed with this environment in mind.

www.cisco.com

www.tmcnet.com/1609.1

Mindspeed Introduces Comcerto 300 Series VoIP Processors

Mindspeed Technologies (News - Alert) is now offering a next-generation family of system-on-chip carrier access VoIP processors, the Comcerto 300 series, designed to enable the migration of copper loop voice access networks from traditional Class 5 TDM equipment to next-generation VoIP Multi-Service Access Nodes (MSANs).

www.mindspeed.com

www.tmcnet.com/1610.1

TANDBERG Launches Codian (News - Alert) MSE 8321 Gateway

TANDBERG launched its Codian MSE 8321 gateway, which enables organizations to hold up to 1,000 concurrent videoconferencing calls between IP and ISDN. The TANDBERG Codian MSE 8000 Series, a single-chassis solution, provides multiple and interchangeable functions such as gateway, multipoint conferencing, recording and supervisor blades.

www.tandberg.com

www.tmcnet.com/1612.1

IPgallery Intros Application Server Based on Group Architecture

IPgallery announced the first Application Server design based on Group Architecture. The Group Application Server is designed to support a rich set of IP telephony features, advanced routing services, multimedia support, FMC and IP Centrex delivering to service providers a simplified UI to define relationships of individuals within the group and a variety of associations between services and individuals.

www.g-ipt.com

www.tmcnet.com/1614.1

Intelliverse Upgrades Softphone

Intelliverse announced upgrades its Softphone application for its callEverywhere hosted VoIP service. The new product rollout includes a more user-friendly interface that allows users quicker and more intuitive access to features they commonly use. "We redesigned the Softphone to provide our customers with a more customized application to reduce the time spent having to relearn the most basic functions of the phone."

www.intelliverse.com

www.tmcnet.com/1611.1

Covergence (News - Alert) Completes Interoperability Testing with DIGITALK

Covergence announced the completion of interoperability testing with DIGITALK. The Covergence Session Manager now works with DIGITALK's Media Application Server, a software-based Multiservice Platform (MSP) that enables service providers to manage delivery and billing of all network services.

www.covergence.com
www.digitalk.co.uk

www.tmcnet.com/1615.1

Motorola (News - Alert) May Spin Off or Sell Phone Unit

Worried over its struggling cell phone business and increasing competition, Motorola has reportedly agreed to separate its mobile phone business, amid mounting pressure from investors. Motorola said separating the mobile devices business, which is dominated by cell phones, would "permit each business to grow and better serve its customers."
www.motorola.com

www.tmcnet.com/1616.1

Juniper Networks (News - Alert) Joins Next Generation Mobile Networks Alliance

Juniper Networks announced it has joined the Next Generation Mobile Networks (NGMN) Alliance, a global initiative made up of leading mobile operators to accelerate the delivery of the next generation of high-performance mobile broadband networks.
www.juniper.net
www.ngmn.org

www.tmcnet.com/1617.1

Ericsson Provides Built-in HSPA Mobile Broadband Technology for Lenovo Notebook PCs

Ericsson and Lenovo have aligned to provide mobile broadband modules based on HSPA, a commercially deployed technology for mobile broadband. Ericsson informs that select Lenovo ThinkPad notebooks will include mobile broadband modules beginning in 2008. Company officials explained that HSPA provides a DSL-like experience wirelessly and is currently capable of peak download rates of up to 14.4 Mbps and peak upload rates of up to 2.0 Mbps.
www.ericsson.com
www.lenovo.com

www.tmcnet.com/1618.1

Aruba Networks Certifies Compatibility of Panasonic (News - Alert) Toughbook Computers

Global provider of wireless LANs and secure unified mobility solutions Aruba Networks has issued a Compatible Partner interoperability rating to Panasonic Toughbook line of WiFi enabled mobile devices. The rating provides assurance to integrators and end users that the products have been tested to work well together

www.arubanetworks.com
www.panasonic.com

www.tmcnet.com/1619.1

C Block of 700MHz Spectrum Will Be 'Open Access' After $4.71B Bid

Regardless of who ends up being the winning bidder, the C block of 700MHz wireless spectrum being auctioned off by the FCC will be restricted to open-access use. Because a bidder offered $4.71 billion for the C block spectrum, just surpassing the FCC's $4.64 minimum bid to trigger the open-access requirement, whatever company wins the spectrum must make it accessible to any device or software application.
www.fcc.gov

www.tmcnet.com/1620.1

Nokia Siemens (News - Alert) Networks and Ubiquisys Team on 3G Femto Solution

Nokia Siemens Networks has worked out a collaboration deal with Ubiquisys to provide mobile network operators with femtocell solutions that offer high-quality 3G services in the home, the companies said. Ubiquisys (News - Alert) will provide femtocell solutions to NSN that are expected greatly improved 3G network coverage and quality of mobile services.

www.nokiasiemensnetworks.com
www.ubiquisys.com

www.tmcnet.com/1627.1

Trango (News - Alert) Broadband Wireless Expands Its Product Line

Trango Broadband Wireless introduced a new line-up of product releases in both licensed and unlicensed spectrums for 2008. Trango Broadband plans to broaden its line of TrangoLINK Giga high-performance point-to-point wireless microwave systems and launch more frequencies for both domestic and international markets that meet ANSI and ETSI standards to address the growing market demand for Ethernet backhaul solutions.
www.trangobroadband.com

www.tmcnet.com/1622.1

CRM Wireless Sync Offered by CompanionLink

CompanionLink Software has released a wireless synchronization product for BlackBerry (News - Alert), Windows Mobile, and Palm OS mobile devices. The CompanionLink Professional software package has an option to wirelessly synchronize information with

various CRM and contact management products and Web-enabled mobile devices so users can access and update their CRM contacts, schedules, and notes from anywhere.

www.companionlink.com

www.tmcnet.com/1621.1

Garmin Introduces nuvifone

Garmin has announced its entrance into the mobile phone market with the nuvifone, an all-in-one touchscreen device that combines a phone, mobile web browser, and personal navigator. Nuvifone is a mobile phone that has a wide range of advanced, yet easy-to-use, features, and claims the all-touchscreen device is the first of its kind to integrate premium 3.5G mobile phone capability with an Internet browser, data connectivity, personal messaging, and personal navigation functions in one device.

www.garmin.com

www.tmcnet.com/1623.1

Skyfire Unveils Downloadable PC-like Mobile Browser

Skyfire unveiled a new mobile browser that makes browsing on a smartphone just like browsing on a PC. For the first time, smartphone users can experience the "real web" to access and interact with any website built with any web technology, and they can do this at the same speed they are accustomed to on the PC.

www.skyfire.com

www.tmcnet.com/1624.1

Strix Systems (News - Alert) Intros First High Power, High Performance Integrated Wireless Video Surveillance System

Strix Systems and Dotworkz Systems declared the accessibility of the highest performance, Integrated Wireless Video Surveillance System (IWVS), what the two companies say is the industry's only incorporated wireless mesh network system exclusively developed for high-quality delivery of IP video surveillance over wireless/WiFi mesh networks in a single easy-to-install packaged design.

www.strixsystems.com

www.dotworkz.com

www.tmcnet.com/1625.1

Bluetooth Technology Helps Double Amputee Walk Again

Thanks to Bluetooth technology — which is usually associated with cell phones — Marine Lance Cpl. Joshua Bleill, a double amputee, is now walking again. The prosthetic legs he is outfitted with use Bluetooth technology to help the 30-year-old Iraq War veteran walk again with the assistance of computer chips in each leg that send signals to motors in the artificial joints.

www.bluetooth.com

www.tmcnet.com/1626.1

Bluesocket (News - Alert) Introduces New Controller

Bluesocket introduced its BlueSecure 3200 Controller (BSC-3200,), which provides integrated Guest Access Services, role-based access control and policy enforcement, built-in RF IDS/IPS and is 802.11n-ready. With the new offering, customers will get more flexibility in choosing the best value WLAN solution for their organizations. Also with BlueSecure Controllers, users of laptops, PDAs and other mobile devices get wireless access to corporate networks and the Internet while roaming.

www.bluesocket.com

www.tmcnet.com/1630.1

WirelessLogix Collaborates With Sequans on WiMAX (News - Alert) Chips

WirelessLogix and Sequans have established a partnership, whereby Sequans' Mobile WiMAX chips will be integrated into the WirelessLogix XCAL-X & XCAP-X WiMAX tools suite. The alliance will enable end users to test Sequans-based devices by using WirelessLogix' XCAL-X real-time data collection and analysis tool.

www.wirelesslogix.com

www.sequans.com

www.tmcnet.com/1628.1

Tranzeo Wireless Technologies (News - Alert) Collaborating with Proximetry

Tranzeo Wireless is collaborating with Proximetry to enhance WiFi and WiMAX network performance and lower network management costs for operators in both vertical and developing markets. The partnership integrates Proximetry's (News - Alert) AirSync intelligent provisioning and management software with Tranzeo's carrier-class WiFi and WiMAX radios.

www.tranzeo.com

www.proximetry.com

www.tmcnet.com/1629.1

Ikivo Launches Enrich Solutions for Mobile Devices and Services

Ikivo AB announced the launch of what it says it the world's first range of fully customizable mobile rich media solutions, Ikivo Enrich Solutions, for highly compelling mobile services. Ikivo's Enrich Application Framework is a flexible and powerful application execution environment for rich media client applications such as mobile TV services, mobile portals, mobile media players and mobile application widgets.

www.ikivo.com

DEVELOPER

www.tmcnet.com/1632.1

RadiSys (News - Alert) Launches Advanced Telecommunications Computing Architecture

RadiSys Corporation launched its Promentum ATCA-4310, a feature rich 10-Gigabit ATCA, single-slot processor blade. ATCA-4310 is well suited for applications where transaction and subscriber load can increase dramatically in short intervals, such as IMS, IPTV, and Wireless Control Plan-based applications.
www.radisys.com

www.tmcnet.com/1633.1

Elma Electronic (News - Alert) Releases New Encoders

Elma Electronic, a designer and manufacturer of rotary components and electronic packaging products, has released a new all-metal body version of their E27 series encoders used with a selection of switches knobs and LED arrays, designed for more "robust applications" than the standard version.
www.elma.com

SIP

www.tmcnet.com/1634.1

Call-Shadow Now Avaya Compatible

Shadow Technology has announced support for the Avaya Telephony Platform and Generic SIP for its Call Recording Product, "Call-Shadow." Call-Shadow is a sophisticated, distributed, easy-to-use, low-cost call recording software product that records VoIP calls using network sniffing.
www.shadow-technology.co.uk

www.tmcnet.com/1635.1

Bandwidth.com's Free VoIP Test

Bandwidth.com has rolled out its improved online VoIP Test, which lets customers measure vital elements of their Internet connections, such as throughput, latency and SIP port compatibility. The test also evaluates the quality of the Internet connection and offers insight into the firewall configuration.
www.bandwidth.com

www.tmcnet.com/1636.1

BroadWorks VoIP Platform and SIP Server Avaya Compliant

BroadSoft announced the latest release of its BroadWorks VoIP application platform and SIP application server is compliant with key SIP solutions from Avaya. The BroadWorks 14.SP2 release platform provides a comprehensive range of VoIP applications that include Hosted UC, Mobile PBX, Business and SIP Trunking, and Residential broadband.

www.broadworks.com
www.avaya.com

IP CONTACT CENTER

www.tmcnet.com/1637.1

HyperQuality (News - Alert) Updates Call Center Online Reporting Tool

HyperQuality announced the launch of HyperView 2.5, based on a new .NET platform. "The improvements that we have made in our HyperView reporting tool will provide existing and future customers with a whole new level of functionality. The bottom line for these users will be even higher productivity and efficiency in their call center operations."
www.hyperquality.com

www.tmcnet.com/1639.1

Qwest Communications Adds Qwest Notify to Contact Center Solutions

Qwest Communications announced the addition of "Qwest Notify" to its Contact Center Solutions. This automated, outbound IVR service is designed to provide business customers with a fast and scalable customer notification feature. With Qwest Notify, automated notifications are provided on a variety of events, including payment or appointment reminders and orders shipped or ready for pick up. Through the proactive notification of information, businesses are able to eliminate costly calls into their contact centers.
www.qwest.com

CHANNEL

www.tmcnet.com/1640.1

Challenger Mobile to Expand its Distribution Channel in Latin American Market

Challenger Mobile plans to expand its distribution channel and marketing programs for the Latin American market, the company said. The Stockholm-based Challenger's initial activities will focus on extending the benefits of the company's channel partner program to the VARs, system integrators, and OEMs serving Latin America's carriers and mobile operators.
www.challengermobile.com

www.tmcnet.com/1642.1

Zoom Technologies Invests in Wireless Mesh Network Provider

Zoom Technologies has made an initial investment of $300,000 in RedMoon, a provider of wireless mesh networks. According to Zoom, if successful, the RedMoon investment will result in Zoom becoming a significant provider of wireless mesh networks and will give Zoom better insight into the needs of wireless network providers.

www.zoom.com
www.redmoonbroadband.com

www.tmcnet.com/1643.1

Telesoft Intros Wireless Help Desk

Telesoft Corporation introduced a wireless help desk service to allow customers to more easily order service and procure devices. Telesoft Mobility Service is complementary to the TeleCell wireless management package and will provide enterprise users with a central 800 number for help desk support. Not only will the new solution help simplify device procurement and enforce policy management but also, organizations can more easily activate and disconnect devices and reduce overall telecom expenses.

www.telesoft.com

www.tmcnet.com/1644.1

Booz Allen Hamilton and ProfitLine (News - Alert) Selected by GSA

The team of ProfitLine and Booz Allen Hamilton was awarded a contract with the General Services Administration (GSA) under the Federal Strategic Sourcing Initiative (FSSI) to support wireless telecommunication expense management services for multiple federal agencies. The team was one of three TEM vendors who met the GSA's requirements. Officials explained that the primary objectives of the FSSI initiative was to establish a common procurement vehicle through which all government agencies may procure and utilize wireless services to help lower total costs associated with wireless services.

www.profitline.com
www.boozallen.com

www.tmcnet.com/1645.1

Avalon Technology Awarded Share of $93 Million GSA Contract

Avalon Technology announced it is one of three vendors chosen by the General Services Administration (GSA) to streamline the procurement and management of wireless devices and services used by the Federal government. Reported studies have found that government agencies generally lack a centralized means of managing wireless device expenditures. Under the GSA contract, Avalon will reorganize the Federal agencies' processes and reduce wireless expenditures through inventory assessment, service-plan evaluation & consolidation, maintenance & support, and security-policy enforcement.

www.avalontechnology.com

www.tmcnet.com/1646.1

Tangoe (News - Alert) Brings CommCare to Global Stage

Tangoe unveiled its new CommCare WorldView managed services offering, which enables multi-national enterprises to view, report on, and analyze spending on fixed and mobile communications in a centralized manner. In order to effectively help multi-national enterprises achieve in their TEM objectives, Tangoe built into ComCare WorldView support for electronic billing formats used by more than 200 communications carriers Latin America, North America, EMEA, and APAC.

www.tangoe.com

www.tmcnet.com/1647.1

RadiusPoint Listed in Hot 100 2007 Fast-Growing Companies in TN

RadiusPoint has been named in the Hot 100 2007 fast-growing companies in Tennessee list. RadiusPoint developed ExpenseLogic, a technology-based, problem-solving software that helps companies manage the daily issues and invoices of Telecom, Utility, Energy and IT expenses. It is a Provisioning portal that enables customers to centralize and authenticate the entire Procure-to-Pay Lifecycle. ExpenseLogic overcomes the challenge of managing assets and complying with contracts by placing the order from the start through to completion and maintains an inventory in a centralized repository.

www.radiuspoint.com

www.tmcnet.com/1648.1

Control Point Solutions (News - Alert) Saves Clients $128 Million

Control Point Solutions (News - Alert) announced that for the 18 months ending August 2007, the company identified and saved its clients over $128 million in telecom expenses. "Due to the complexity of today's telecom environment, no matter what a company thinks it is saving, there are dramatic inefficiencies that our technology and services are able to identify. We are pleased to deliver $128 Million to our clients."

www.controlpointsolutions.com

www.tmcnet.com/1649.1

CFO Vs. CIO: Approach to IT and Telecom Management

AOTMP has announced its latest research report, CFOs' and CIOs' Perspectives: A Top-Down View of IT and Telecom Management. This report details that, when it comes to managing enterprise technology and telecommunications, CFOs and CIOs are often considered to be worlds apart. To produce its detailed report, AOTMP conducted a survey to learn about the views of leaders in finance and IT and heard from more than 275 respondents in an online survey. While alignment was found in perspectives, survey results also revealed contrasting views. Although IT ultimately holds responsibility for managing telecom expenses, Telecom Expense Management (TEM) initiatives are most commonly driven by finance.

www.aotmp.com

www.tmcnet.com/1650.1

Ezwim Renews Contract with Telfort to Deliver Online Bill Solution

Ezwim announced the renewal of its contract with Telfort, a subsidiary of KPN Telecom and a supplier of mobile telecommunications services. "Ezwim and Telfort's partnership dates back to 2003. Using Ezwim's services, Telfort now delivers online bill presentment to its consumer and enterprise customers. Our paperless billing strategy has not only resulted in saving paper, but also time and money which allowed us to pass savings on to our customers."

www.ezwim.com

By: Albert Subbloie

What is Driving the Move to MPLS?

There are at least two perspectives to the MPLS issue, one coming from the carrier and the other from the MPLS service users. Let me first address the latter.

There are a number of business drivers motivating organizations to be proactive in implementing MPLS: new applications that demand any-to-any connectivity, greater bandwidth, or VoIP — especially as it relates to international calling where the cost per minute is prohibitive — and convergence to name a few. By and large, however, cost efficiencies are the main business driver pushing companies internally to consider MPLS.

On the carrier side, significant investments have been made in their MPLS networks and support systems; to paraphrase a line from one of my favorite baseball movies, "Field of Dreams," "Now that we've built it, let's hope they come." Some carriers are attempting to force migration to MPLS through a number of strategies including higher pricing on legacy frame and ATM services and discontinuing or slowing investments in frame or ATM infrastructure. Another strategy involves the publishing of "sunset dates" to create fear, uncertainty, and doubt around whether the carriers will continue to provide frame and ATM services.

The bottom line is that for carriers, like end users, economics is the major motivation in the migration to MPLS services. Put simply, MPLS services are less expensive for the carriers to maintain than legacy Frame and ATM network services. They are also considered to be more "sticky" — meaning because there is a significant investment in the initial migration to MPLS, it's more difficult to migrate from MPLS than legacy networks and there's less likelihood that an organization will switch services to another carrier once they've made their initial MPLS carrier decision. The carrier stakes are even higher when one considers the "winner take all" strategy that results from some carriers opting not to offer formal network-to-network support. This forces clients not interested in managing a network-to-network interface into considering a single provider solution.

With strong incentives, and perhaps even doubts about continued support for ATM infrastructure support, corporations may feel "compelled" to make the MPLS move. The important point for companies to remember is that the migration to MPLS services should be driven by the corporation's present agenda and future needs — not the carrier's.

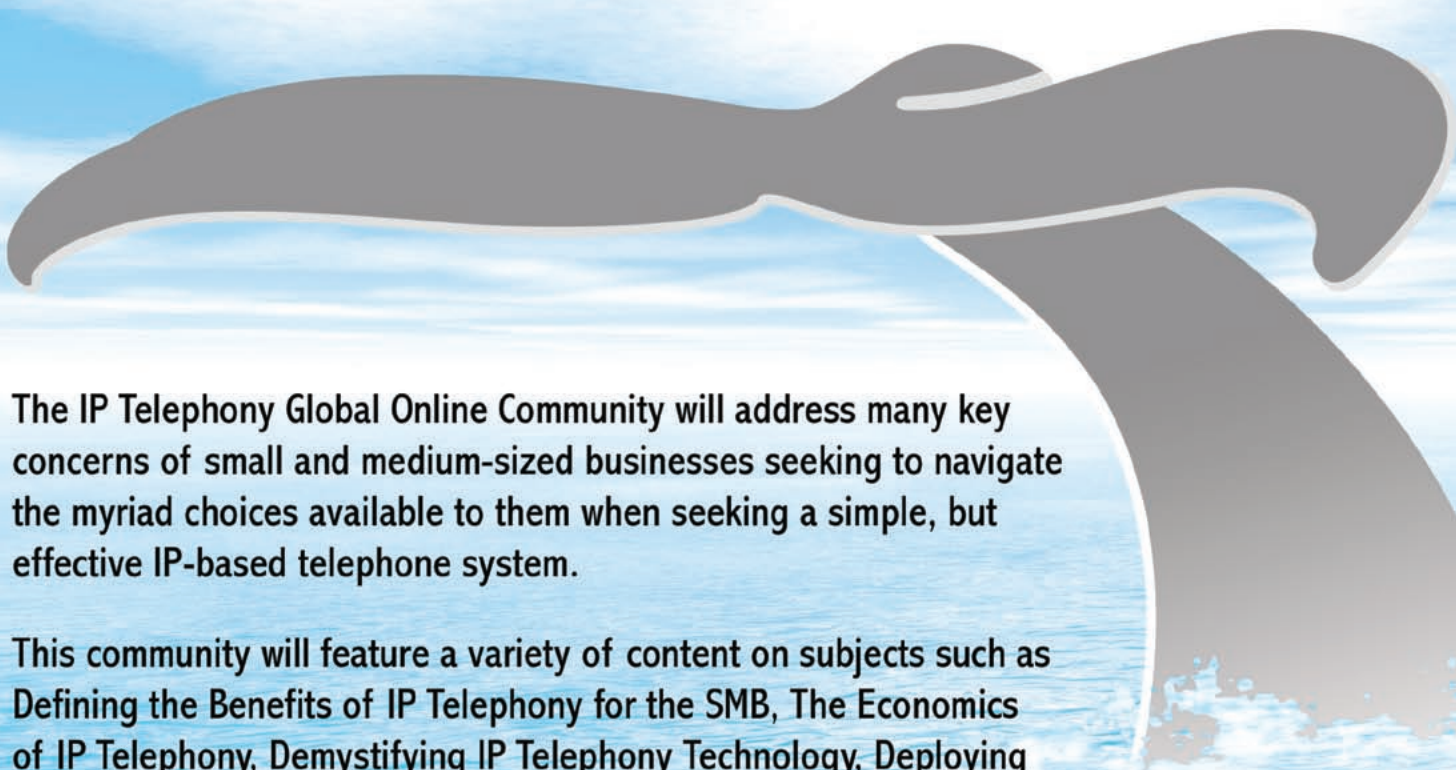
If a shift to MPLS services seems appropriate, companies should have a clear understanding of their service requirements, including both present needs and future plans and capacity requirements. Is there a need for multiple logical VPNs (segregated VPNs), for instance, to support a corporate network and another to support retail outlets? Do you have the in-house MPLS expertise or will a managed router solution be required? Those needs should be established up front and included in any RFP. Even if you're migrating with your current provider, make sure you've stabilized pricing in your agreement, specifically service guide rates, and base rates, which do change even though your discounts may remain the same. Think futures because you don't want to be at the mercy of your provider after the MPLS migration and have an agreement that very specifically addresses current sites but requires you to go back to for an additional quote for future additions.

There are, of course, multiple considerations and perspectives to examine. In fact, considerations are many, and for some the choices can be daunting — especially while managing existing services and communications needs. The differences in the way the providers are pricing their MPLS services, along with the complexities associated with managed services, make getting to an apples-to-apples comparison challenging. With that in mind, consider seeking the advice of a reputable organization to provide guidance when formulating and executing an MPLS strategy. Above all, remember, if you're planning on migrating to MPLS, do it on your own terms with your immediate and future needs well-defined and carefully documented.

Albert Subbloie is President, CEO and Founder of Tangoe, Inc (www.tangoe.com), the leading software provider in the TEM space. Recognized as a telecom technology and Internet pioneer, in 1984 he co-founded and served as CEO of Information Management Associates (IMA), guiding its growth to more than $50M in sales. In 1997, he co-founded Buyersedge.com (acquired by Ensera), an Internet company in the field of reverse auction. (Subbloie is credited with a patent for reverse auction theory, the leading Internet shopping site paradigm.) He also founded Freefire (acquired by Teletech Holdings), a web-enabled e-CRM customer interaction software company, and served on the Board of Acsis, Inc., the leading provider of RFID device management technology solutions (sold to Safeguard Scientific). He now serves on the Board of NYC-based Operative Inc. He was also Chairman of the Connecticut Technology Council (CTC) and now serves as a Board member.

Confused?

Join the IP Telephony Global Online Community to Find the Answers You Seek



The IP Telephony Global Online Community will address many key concerns of small and medium-sized businesses seeking to navigate the myriad choices available to them when seeking a simple, but effective IP-based telephone system.

This community will feature a variety of content on subjects such as Defining the Benefits of IP Telephony for the SMB, The Economics of IP Telephony, Demystifying IP Telephony Technology, Deploying Broadband Phone Solutions Designed for Small and Medium Businesses, Overcoming the Limitations of IP Centrex, What to Expect from a Managed Service Provider, and a thorough analysis of feature-related benefits.

The community will also feature a wealth of information in the form of case studies and articles that are critical to the SMB decision maker seeking to deploy various applications such as multimedia conferencing; IP-based contact centers; electronic faxing; unified messaging; multi-site deployments; road warrior mobility; and much more...

http://ip-telephony.tmcnet.com

Sponsored by: whaleback SYSTEMS™

Powered by: TMC

Quintum's Tenors Guide Innovation

By: Erik Linask

Innovation Technologies Worldwide, since 1988, has been a key member of the hospitality industry, with its Inline family of voicemail systems installed in nearly every major hotel brand, along with add-on products like DID servers, call accounting, Internet call forwarding, and more. Now, it has transitioned those existing voicemail products to a more modular product line that encompasses voicemail, PBX, and a host of other hospitality specific applications, in ComXchange, its new flagship product.

As in most any industry, the competition is fierce in the hospitality space, a situation made all the more precarious by shrinking budgets. So, to keep pace with customer needs, and to generally enhance its guest relations capabilities, the WISCO Hotel Group, which manages nine franchised hotels in Wisconsin (with two more under development for 2007-08), agreed to have ComXchange installed at its Holiday Inn Madison-West.

Within months, WISCO saw a noticeable impact on day-to-day operations at the facility, and it installed ComXchange at four other properties, with plans to install ComXchange in the remaining four properties as well as at any future sites.

The trouble with any new technology is the need to balance the investment with benefits, particularly in today's multivendor communications environment. However, ComXchange consolidates IP PBX, voicemail, call accounting, hosted conferencing, unified messaging, and advanced hospitality support features on a single platform.

"We had multiple vendors and often, when a problem would arise, one would blame the other," commented Dave Phaneuf, WISCO's Vice President of Operations. "In our business, we just need to get the problem fixed or else it's costing us money. Until we installed ComXchange, we had no idea the cost savings we'd realize by having one interface."

However, the hospitality space, both despite and due to the number of customers, while looking to benefit from new communications technologies, also tends to lag behind other verticals in its ability to "go all-IP." Because many facilities are unable to run new cabling to rooms, and also because of the training required for guests to be able to use many of today's new IP endpoints, not to mention the costs associated with replacing all the endpoints in a hotel, a large portion of the hospitality vertical still relies heavily on the PSTN and analog phones.

"Most properties want to keep their existing phones," explained Tony Engel, Director of Emerging Technologies at Innovation. "They look at the phones primarily as a cost, but once there's a benefit, in terms of content or some of the IVR apps that can be implemented, they'll start investing in newer phones."

"What we see across the industry is that, as people adopt new applications on converged platforms, they look to deploy technology in a non-disruptive way," added Chuck Rutledge (News - Alert), Vice President of Marketing at Quintum Technologies, which usually mean not doing a complete forklift replacement at once.

This means that hotels deploying IP PBXs need a reliable, scalable way to interface with older technologies, like FXS and FXO stations, T1s, and of course, the PSTN. For the WISCO Group, Innovation looked at eight or nine gateway manufacturers, all of which provide SIP-based connectivity between the IP PBX and legacy infrastructures, including the one- and two-line analog phones in guestrooms. Importantly, they also need to be able to accommodate many special requirements that have become increasingly common in the hospitality space. For its gateway and trunking needs, Innovation chose Quintum.

"Quintum, by far, was the most accommodating; we had some special needs with message waiting indicators — the hospitality industry uses some odd protocols there," said Engel. "They did some custom work for us, which hit the nail on the head for what we needed in a device."

Unlike many businesses that deploy gateways from Quintum and other vendors, most hotels do not necessarily need all the available features, since they tend to do little site-to-site calling. Rather, their primary use for the gateways and trunking support is to enable local and long distance calling for guests.

Because they need only the basic gateway functionality, the ability to support customized dial plans becomes increasingly important. In the WISCO case, this meant support for neon and LED message waiting lights. Traditional PBXs use high-voltage neon (a 90V light

and a lower, 24V LED), as opposed to the FSK (Frequency-shift Keying) scheme in most newer SIP gateways, which isn't well suited for the guestroom devices.

"We gave Quintum the specs, and it was quite impressive — within about a week or so, they had a working model for those requirements," said Engel. "That was huge for us, and I don't know that we could have entered the market without that, because it would have meant replacing all the existing guestroom phones as well, which is not cost-effective. Instead, we were able to emulate all three types of message waiting lights in the same manner the traditional PBXs could."

The need to support traditional message waiting indicators again goes back to the difficulty in "training" hotel guests on the features of new phones. For instance, in a traditional enterprise environment, it is relatively easy to train users to understand that a stutter dial tone means there is a message waiting. In the hospitality arena, however, it's a little more difficult, since you have to deal with new guests each day who are not familiar with the system.

The other customized feature Quintum was able to provide was a return dial tone, another legacy carryover. When a guest dials '9' or '8' to get an outside line, they typically expect to hear a dial tone again indicating they can continue dialing. Most newer phone systems don't offer that feature. In the hotel environment, that tends to create a situation where the front desk becomes inundated with calls from guests complaining they cannot dial out, when, in fact, they can. Quintum was able to eliminate that burden on hotel staff by delivering the return dial tone.

According to Rutledge, Quintum is asked to address dial plan requirements quite frequently, largely because there is a wide variety of dial plans in use today, particularly when considering hospitality on a global scale. In an age of mergers and acquisitions, requests to support and translate between multiple dial plans, in fact, have become rather common, and the ability to accommodate those requests has become critical to business success — for both the hotel and the gateway vendor.

"At the hotel where WISCO's business offices are, we've been able to significantly reduce call volume at the front desk," said Phaneuf. "Not only does this save us time and money staffing, but we're able to provide better customer service to the guests in front of us — and for us, that's what it's all about."

In addition to Innovation's ComXchange platform, nine WISCO properties have been outfitted with Quintum Tenor AX and DX gateways for provide all the analog and T1 interfaces to the IP PBX via a SIP connection. In fact, Innovation TW says it has now standardized on Quintum gateways at all its sites that require analog support.

According to Engel, deployment of the Tenor gateways was simple

– they worked right out of the box — which he attributes to Quintum's use of open SIP standards.

But, the reason Innovation chose Quintum, he says, is, "The people they have and the attention they give their customers. We worked with several others that weren't willing to do the customization that would enable us to compete in this marketplace. Quintum went far and above to help us do that. Of course, we were very impressed with the product itself, particularly the survivability element."

In any service industry, customer management is the key to increasing revenues, and when a hotel is able to proactively meet guest demands, it means a higher level of customer satisfaction. While many of today's IP Communications products and solutions offer countless features, many are beyond the scope of what the hospitality industry needs. Instead, hoteliers need real solutions that are able to meet their specific needs, and help them save time and money and better service their guests.

ComXchange, along with the Tenor gateways and Quintum's ability to customize, has brought that to the WISCO properties, and to all the Innovation sites going forward. The ComXchange applications are bringing a new value proposition to the hotel industry, and Innovation's customers now need to be able to leverage their existing network infrastructures to benefit from the new software platform, which is what the Tenor AX provides — a high capacity analog interface to the phones — and the Tenor DX creates a trunk from the IP PBX to the phone network. So, what Quintum effectively provides is the interface between ComXchange and the legacy telephony network — both on the telephone network side and the hotel infrastructure side.

"What is being done here with Innovations TW is one of the big advantages of VoIP as a whole," said Rutledge. "You have a particular vertical, and a particular set of applications, delivered in a way to use technology to serve that vertical in a new and different way. The technology is being integrated with the innovation of the application, and it makes it possible to take the whole product out to a very specific industry, and deliver value."

Talking with Danny Windham, CEO of Digium

By: Richard "Zippy" Grigonis

Danny Windham is CEO of Digium (www.digium.com), the creator and primary developer of Asterisk, the industry's first open source telephony platform. The combination of Asterisk software and Digium I/O hardware really got the ball rolling, inspiring other groups and companies to enter the world of open source communications.

For example, Nokia recently announced that it had made a public voluntary tender offer to acquire Trolltech (News - Alert) (www.trolltech.com), a publicly-traded company headquartered in Oslo, Norway. Kai Oistamo, Executive Vice President, Devices, Nokia, said, "Trolltech's deep understanding of open source software and its strong technology assets will enable both Nokia and others to innovate on our device platforms while reducing time-to-market." Without the invention of Asterisk, it's doubtful that open source communications would have progressed to its current levels of technical proficiency and adoption.

And open source communications continues to gain in popularity, particularly among small and medium-sized businesses (SMBs), and Asterisk/Digium remains at the forefront of the field.

It was only natural, therefore, that our first Open Source Communications interview would be with Danny Windham of Digium. Before joining Digium, Windham served as President and Chief operating officer of ADTRAN (News - Alert), a global provider of networking and communications equipment. Windham holds a Bachelor of Science degree in Electrical Engineering from Mississippi State University where he was named a Distinguished Engineering Fellow in 2001. He also holds an MBA from Florida Tech.

RG: How do you keep up with all of the submissions and user community requests for new features?

DW: Digium's Online Issue Tracker lets us keep track of all of the submissions and requests from the open source community. It lets us track all sorts of issues to a high level of granularity. Digium processes and solves over 250 issues per month including community patches, feature requests, bug reports and fixes. We attempt to isolate as many as possible to specific locations in Asterisk and identify who contributed them and the context in which the submission or request was made. There are over a dozen full time developers at Digium who focus on handling these Issue Tracker items.

RG: It's said that your IAX and DUNDi technologies are optimized to solve certain problems that SIP and ENUM do not address as well or as efficiently. Does that upset some people?

DW: The IAX protocol was developed by Mark Spencer (News - Alert), Digium's founder and CTO, to provide communications between Asterisk servers. IAX handles three times the number of G.729 calls per megabit as SIP. Due to IAX's ability to break through firewalls, thus solving NAT traversal problems inherent in SIP, some people have used it as a VoIP service trunk. IAX is designed to address as directly as possible the fundamentals of making a phone call across the Internet in a lighter-weight, performance-optimized alternative protocol to SIP. IAX was not intended to compete with SIP. It addresses a subset of what SIP addresses. People who are SIP purists might view IAX as a competitive protocol but most people don't. Digium has half a dozen certified phone partners — all are SIP and none are IAX, although there are a few IAX soft phones. Our view is that IAX is complementary to SIP.

DUNDi, which Mark Spencer also created, is a directory system for number discovery that is mapped to an IP address and is used both in the enterprise and for global number resolution. Unlike ENUM, DUNDi has no central repository for directory data. With DUNDi servers, each node is connected to at least one other node in the network so there's no central point of failure and no monopolist control. With ENUM, there are a few companies developing ENUM service directories that stand to make a lot of money from it. Those companies don't like the idea of DUNDi on a global scale because it would take away their monopoly and force them to compete.

RG: What do you see in the Asterisk/Digium future? Will you guys diversify into other areas?

DW: There's so much opportunity available to Asterisk that you won't likely see Digium diversifying into another application or open source project. In addition to continuing our support of the Asterisk community, Digium's role will be packaging Asterisk to address specific market or geographic segments. For example, recently we have been focusing on small and medium-sized businesses with our Asterisk Business Edition and Switchvox products. You'll see more of that specific market and geographic segment focus in the future from Digium. IT

Richard Grigonis is Executive Editor of TMC's IP Communications Group.

www.tmcnet.com/1651.1

edgeBOX: The Critical Link to SMB Communications

For SMBs with as many as 300 users, Critical Links (News - Alert) now offers a host of network services in a single device, meaning they no longer need disparate devices, lowering both CAPEX and OPEX. By being able to deploy a single edgeBOX appliance, businesses can have their communications networks up and running in a matter of hours, including all the applications and functions required by today's converged IP environments.
www.critical-links.com

www.tmcnet.com/1652.1

PIKA for Asterisk Now Compatible with Fonality's (News - Alert) trixbox CE

PIKA Technologies announced its PIKA for Asterisk family of analog and digital boards is now compatible with Fonality's trixbox CE. The PIKA for Asterisk suite is constructed from a range of hardware and software products that are designed to support applications built on the open-source Asterisk platform.
www.pikatechnologies.com
www.trixbox.com

www.tmcnet.com/1653.1

Pactolus Goes Live at Cable MSO

Pactolus Communications announced its selection by a major U.S. telecom, media, and entertainment company. The MSO, owners of one of the nation's largest cable clusters, selected Pactolus' RapidFLEX Service Creation and Delivery Platform and SIPware Prepaid Calling to provide its millions of telecom service customers with new calling options, features, and economics.
www.pactolus.com

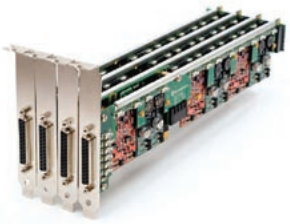
www.tmcnet.com/1654.1

Aretta Launches Hosted Asterisk-based IP PBX

Aretta Communications announced the availability of NetPBX, the first hosted Asterisk-based IP PBX with integrated SIP Trunking and preconfigured VoIP handsets, specifically designed for SMBs, which can be up and running with a full-featured IP PBX in minutes with an unlimited number of extensions — and no hardware to buy, no installation fees and no 'a la carte charges for PBX features.
www.aretta.com

www.tmcnet.com/1655.1

Sangoma Expands Presence in Latin America



Sangoma Technologies (News - Alert) has partnered with XmarteK to increase distribution of its premium cards throughout Latin America. Sangoma's full line of products will now be available in Mexico, Peru, Colombia, Argentina, Chile, Ecuador, Venezuela, Central America and the Caribbean.
www.sangoma.com

www.tmcnet.com/1656.1

Azingo (News - Alert) Launches Azingo Mobile

Azingo announced Azingo Mobile, a comprehensive suite of open mobile software and services designed to help companies deliver Web 2.0 applications, music, video, vivid graphics and more to a wide range of mobile phones. Leveraging the economies of open source innovations and based on LiMo and its ecosystem Azingo Mobile provides a less costly and more flexible platform for designing and deploying mobile devices.
www.azingo.com

www.tmcnet.com/1657.1

SpringSource Acquires Covalent

SpringSource acquired Covalent Technologies. The acquisition will enable SpringSource to provide a single source for products and services in order to facilitate faster development, testing, deployment, and operating enterprise applications. In order to achieve this, the company plans to use the Spring Portfolio and ASF projects like Apache Tomcat and Apache HTTP.
www.springsource.com
www.covalent.net

www.tmcnet.com/1659.1

Nokia to Acquire Trolltech

Nokia intends to acquire software company Trolltech, a software provider with software development platforms and frameworks. The acquisition of Trolltech is expected to enable Nokia to accelerate its cross-platform software strategy for mobile devices and desktop applications, and develop its Internet services business.
www.nokia.com
www.trolltech.com

www.tmcnet.com/1658.1

IVT Completes Interoperability Testing on Citel's VoIP Adapter

Intuitive Voice (News - Alert) Technology completed interoperability testing on Citel's Portico Telephone VoIP Adapter (TVA), which allows legacy handsets to connect to the Evolution PBX platform.
www.intuitivevoice.com
www.citel.com

www.tmcnet.com/1660.1

Interactive Intelligence Selects BladeWare(VXML)

Interactive Intelligence has selected Commetrex's BladeWare(VXML) Commercial Edition (CE) as the VoiceXML interpreter for its Interaction Center platform. "BladeWare(VXML) CE will enable us to focus on our specialty of developing sophisticated voice-enhanced IVR applications without having to worry about supporting the latest VoiceXML standards."
www.inin.com
www.commetrex.com

www.tmcnet.com/1661.1

Expand Delivers WAN Optimization for 3Com OSN

3Com and Expand Networks (News - Alert) announced the delivery of WAN optimization as a 3Com Open Services Networking (OSN) application on the new 3Com MSR Series Multi-Service Router platform. Jointly tested and validated, the Expand Networks WAN optimization solution solves the main issues of congestion and latency on the WAN through its tight integration with the network fabric via OSN.
www.expand.com
www.3com.com

Dual Mode Handsets

When *Internet Telephony* (News - Alert) last produced a dual-mode handset product round-up, back in October, 2006, there were a number of dual mode handsets already on the market, and more in development — we listed more than a dozen from both wireless carriers as well as third-party developers.

Today, however, despite the continued conversation about dual-mode technology, fixed-mobile convergence, and a general increased focus on mobility, a simple web search reveals, at best, the number of vendors actively marketing these devices has not increased.

This seemingly contradicts reports, such as those from ABI Research, which suggest dual-mode handsets will command a significant part of the mobile market within a few years. However, ABI also believes the enterprise market will be the driving force behind the uptake in dual-mode technology, despite evidence that the consumer market is currently well ahead of the enterprise in dual-mode adoption.

The benefits of a single device to access cellular and WiFi networks are evident. For the user, the benefit comes largely through cost savings by being able to switch to a voice-over-WiFi call, rather than using cellular minutes while in the home or office. For the broadband service provider, it has potential to again see a rise in voice revenues, and, for the mobile operator, it presents a revenue generating opportunity by way of enhanced in-building coverage and WiFi hotspots.

There are, however, impediments to widespread growth of the dual-mode market, largely because wireless carriers may be unwilling to promote such services, given the decreased minutes usage on their own networks that would result. Carriers like T-Mobile (News - Alert), however, which has built a large hotspot network, are certainly in a better position to enable dual-mode services.

In addition, battery life is an issue, as WiFi activity drains device batteries considerably faster than cellular calls. Still, given advances in both battery and WiFi technology, it stands to reason this issue may resolve itself faster than carrier reluctance, especially given the growth of the femtocell market, which can negate one of the reasons for adopting dual-mode strategy — weak in-building coverage. In the U.S., in particular, where cellular minutes are relatively inexpensive, this may prove a major barrier to dual-mode technology growth.

Still, in North America, and even more so in APAC and EMEA, dual-mode technology is being developed by vendors and adopted by users. Agito Networks (News - Alert) late last year announced its dual-mode capable router for the enterprise space, and just recently, Nortel and Qualcomm completed testing on a seamless switching application for WiFi and cellular networks based on Nortel's IMS technology. And Acme Packet (News - Alert) expanded its SBC line with solutions to help securely facilitate fixed-mobile solutions.

In addition, much can be learned by examining the work around WiFi/cellular convergence emanating from Europe and Asia, as evidenced by a casual glance at announcements made in Barcelona at Mobile World Congress. For instance, Tango Networks has completed interoperability testing with U4EA Networks' SBCs; NextPoint (News - Alert) Networks has unveiled its IP Multimedia Exchange (IMX) to support FMC; and Kineto Wireless and NXP are collaborating on combining UMA and 3G technologies.

Recent research also suggests that European businesses are quite keen to the benefits of FMC, and many are already in the early stages of adoption.

So, despite the slow uptake of dual-mode devices to date, there are several manufacturers driven to ensure they have an edge on the competition as FMC and dual mode technologies go mainstream. And the truth is, with the tremendous push towards Unified Communications and single number access solutions, the next logical step is, indeed, single device access. Perhaps the greatest difference today, compared to our last report, is that the majority of the vendors touting their dual-mode handsets are most of the big names in the smartphone space.

Some of the handset vendors that currently have dual-mode units available are listed below, and the list, if research reports and the drive for simplified communications hold true, is sure to grow. We encourage vendors that have been inadvertently omitted from this list to let us know (elinask@tmcnet.com), so that we may update our list accordingly.

Agilent Technologies www.agilent.com/comms	**Nokia** www.nokia.com	**Research In Motion (RIM)** www.rim.com	**T-Mobile** www.t-mobile.com
AT&T www.att.com	**Paragon Wireless** www.parawireless.com	**Shanghai Simcon** www.sim.com	**UTStarcom** www.utstar.com
HP www.hp.com	**Pirelli Broadband Solutions** www.pirellibroadband.com	**Sony Ericsson** www.sonyericsson.com	**Winstron NeWeb** www.wneweb.com

http://call-recording.tmcnet.com

TMCnet Introduces...
The Call Recording Community

- Compare Solutions
- Review Case Studies
- Get Independent Research & Analysis
- Trade Show/Conference Listings
- Training Resources

Hosted by

Teleformix

Upcoming TMCnet™ Webinar Schedule

March 4, 2008 • 2:00 pm ET/ 11:00 am PT

Migrating from Legacy Voice Mail Solutions to Unified Communications

Sponsored by:

AVST

http://www.tmcnet.com/webinar/avst

April 15, 2008 • 2:00 pm ET/ 11:00 am PT

Deploying Speech Automation Using a Hosted Solution

Sponsored by:

VOLTDELTA HOSTED SOLUTIONS

http://www.tmcnet.com/webinar/volt-delta

Archived • View Today!

Optimizing Agent Productivity with Desktop Integration

Sponsored by:

openspan

http://www.tmcnet.com/webinar/openspan

Archived • View Today!

IP Convergence Means Channel Convergence

Sponsored by:

speakeasy

http://www.tmcnet.com/webinar/speakeasy2

Archived • View Today!

Learn How to Host Revenue-Producing VoIP Services

Sponsored by:

GENBAND

DRIVING THE NETWORK EVOLUTION

http://www.tmcnet.com/webinar/genband

Archived • View Today!

Divide to Conquer: Meeting the Needs of 3G Wireless with Multicore Technology

Sponsored by:

Texas Instruments

www.tmcnet.com/webinar/texas-instruments

Archived • View Today!

Inter-Network Mediation in Multimedia Networks

Sponsored by:

Newport networks

http://www.tmcnet.com/webinar/newport-networks

Videoconferencing – As Real as it Gets

By: Richard "Zippy" Grigonis

At one time companies avoided videoconferencing because the equipment was big and expensive, and setting up conferences was a technical ordeal (bonding two or three BRI ISDN lines wasn't always tons of fun) as well as an administrative hassle. Over time the situation improved with the arrival of cheap, high-bandwidth IP connections, presence technology and the continuing decline in electronics cost, but growth in the industry was still slow. A major boost came with the events of 9/11, after which everyone talked about using audio and videoconferencing, as well as application sharing over the web, to keep employees out of harm's way. Recently there have been "green" arguments for using conferencing equipment (no travel = no great energy expenditure or pollution). Economics, however, rules the day. Video use reduces travel expenses, but in these increasingly tough times many companies don't have money for either conferencing or travel. Between these two extremes are organizations with no equipment that rely on conferencing service providers, such as Verizon.

In the meantime, videoconferencing technology continues to improve with lifelike high-definition "telepresence" and scales up in terms of call capacity. Indeed, some little boxes can handle the needs of a service provider, let alone an enterprise.

For example, TANDBERG (www.tandberg.net) which provides presence-based , high-definition videoconferencing and mobile video solutions, recently launched their TANDBERG Codian MSE 8321 gateway, enabling organizations to support 1,000 videoconferencing calls between ISDN and IP, or up to 180 videoconferencing calls in HD between ISDN and IP via their Universal Port technology. Recent enhancements allow the Codian to support up to 72 ISDN primary rate interfaces (PRIs) in a single chassis (nine ISDN blades at eight PRI ports per blade), which TANDBERG claims makes their box the highest capacity, HD ISDN gateway in the market.

TANDBERG has also developed new software which integrates HD video with Microsoft OCS. They even formed an alliance with Hewlett-Packard (www.hp.com) to make their respective telepresence and video conferencing portfolios interoperable. TANDBERG's systems can operate on the 45 Mbps HP Halo Video Exchange Network (HVEN), a secure, high-bandwidth, full duplex, worldwide fiber optic network.

The Halo Gateway acts as a bridge between a Halo session and a videoconferencing (H.323/H.320) call such as one from any TANDBERG endpoint, as well as most standards-based (H.323/H.320-compliant) endpoints. The gateway includes a TANDBERG Video Switch with their 6000 MXP codec, a Halo compositor, and HP ProLiant application server with an HP SAS drive, all required cards, interfaces and cabling, custom-designed HP Proprietary Software,

HP's Halo Collaboration Studio.

complete installation in the Halo studio(s) and 24x7 monitoring, diagnostics and concierge service.

HP's Halo Collaboration Studio provides an immersive telepresence experience through HP's HVEN, the whole system being an end-to-end managed solution. With HVEN, video packets pass through a maximum of four routers, thus reducing packet loss, delay and jitter and enabling a "no-perceived-delay" experience. HP says Halo Collaboration Studio can be implemented without upgrades to your existing network infrastructure. You don't even need to hire any specially-trained IT personnel. HP takes care of everything and provides 24x7 service.

The Halo Collaboration Studio offers multipoint capabilities, and cameras with 3-axis control operation that automatically adjust to provide proper eye contact and geometric consistency. Over the HVEN HD channel one can share presentations, video or Computer-Aided Design (CAD) images from your laptop computer. You can view hard copy documents or handheld objects via an HD overhead object camera capable of handling 1280x960 pixels or 720HD, with a maximum zoom of 64x. The dedicated collaboration channel includes an HD collaboration screen and proprietary software. You can even share multimedia materials such as DVDs or audio presentations in full stereo sound.

B/OSS™

BILLING & OSS WORLD

CONFERENCE & EXPO

April 29 - May 1, 2008 • Hyatt Regency McCormick Place • Chicago

Register Early and Save!

www.billingworldexpo.com

- Attend the premier event for business and operations support solutions
- Network with more than 1,100 industry professionals
- Increase software and service support efficiency
- Learn what the future holds for billing and OSS

BILLING • EBPP • CUSTOMER MANAGEMENT • OSS • IMS • TAXATION • REVENUE ASSURANCE

Sponsors as of 1/8/08

INTEC · Nakina Systems · patni · TEKELEC · CREATE THE NEXT WAVE · Tech Mahindra · PHONE+ · xchange · B/OSS

Billing & OSS World is the latest addition to the Virgo Publishing Telecom Division

VIRGO publishing
Connecting You with Your Customer

Moreover, Halo construction specialists help companies construct a suitable Halo environment, which includes specially designed sound absorbing wall coverings, fully-duplexed spatial audio with echo cancellation, a graphic eye lighting control system, and an executive table with chairs.

As Big As Life

HP's competitors at the high end include LifeSize (www.lifesize.com), Teliris (News - Alert) (www.teliris.com), Cisco Systems (www.cisco.com) and Polycom (www.polycom.com).

LifeSize Communications (www.lifesize.com) offers variations of their telepresence systems for the enterprise, education, public sector and healthcare. Their LifeSize® Room™ is their high-end, HD video communications system that connects to most displays in any size conference room and provides 1280 x 720 pixels at 30 frames per second video resolution. Like competing telepresence systems, participants can be made to appear true-to-size. HD resolution requires 1 Mbps, DVD quality comes in at 512Kbps and Cable TV quality can be achieved at 384 Kbps. LifeSize Room includes embedded 4-way CP (Continuous Presence) and 6-way VAS (Voice-Activated Switching) HD multipoint capabilities to connect multiple participants. A single person in a small office might try LifeSize Express, a more affordable, user-friendly, HD system.

Teliris offers one of the more impressive Telepresence systems on the market.

For team projects and sharing multimedia, LifeSize offers LifeSize Team MP. Designed to connect people in different locations, LifeSize Team MP relies on an embedded HD multipoint bridge. Four callers can be viewed simultaneously without external equipment, advanced scheduling, or a technician.

LifeSize hasn't ignored audio either. Their new LifeSize® Phone has 16 always-on microphones that deliver 2X the room coverage and 10X lower distortion from HVAC and projector noise.

Room With a View

Teliris (http://teliris.com) offers a particularly impressive fourth-generation telepresence system. Called VirtuaLive, it's an impressively modular, scalable and reliable (Teliris guarantees 99+% reliability) system. And it's also delivers an amazingly lifelike conferencing experience, even for a telepresence system. The ingenious technological methods to make this illusion work involve Teliris' own large, non-glare screens using "Hyperion" technology that minimizes the gap between screens to the smallest in the industry, and matching up the "eye lines" of parties in both rooms involved in the conversation, so that you find yourself in a realistic, perfectly natural meeting experience. Teliris goes so far as to analyze and configure your organization's conference room for optimal performance, even calculating distances and delays using the speeds of light and sound so that both the video and audio will be perfectly synced (no more silent moving lips).

Marc Trachtenberg, Marc Trachtenberg, CEO, CTO and co-founder of Teliris, says, "We're selling a great meeting experience, not technology."

Teliris systems are modular and scalable. You can have a huge multi-screen system (each module uses about 6.5 Mbps), or you can set a single-screen executive model on your desk. They also offer WebConnect technology that allows for remote participants to engage in a virtual meeting through any broadband Internet-connected web-based device. Users can view, hear and interact in a full telepresence meeting, and can review presentation materials or any other content displayed in the meeting room.

Teliris has also announced the release of a gateway that expands their systems' interoperability, allowing Teliris customers to connect to competing standard telepresence systems as well as legacy videoconferencing, audio and desktop conferencing systems and web-enabled devices such as mobile phones and PDAs.

Indeed, Teliris is the leader in the Telepresence industry, holding about 44 percent of the market share and deployed in 19 countries. They're the most widely-deployed solution in the pharmaceutical, banking/financial and media sectors. The company received the 2007 Global Award for Market Leadership from Frost & Sullivan

The Cisco TelePresence meeting solution also creates a live, "face-to-face" meeting experience over the network-empowering, boosting your ability to interact and collaborate with others.

Cisco got into the telepresence business with their introduction of Cisco TelePresence in October 2006. It provides HD 1080p video, spatial audio, and the "single conference room trick" whereby distant rooms are configured (e.g. painted the same color) so that they resemble a single conference room during the telepresence experience.

TelePresence 3000 is Cisco's higher end system, featuring three 1080p flat panel displays, three broadcast-quality cameras, three ultrasensitive microphones, three 60-inch plasma screens, a crescent-shaped table that seats six and soft backlighting, all for US$299,000.

The smaller TelePresence 1000 system for small group meetings and one-on-one conversations (with up to 72 participants in a multipoint meeting) uses a single 1080p 65-inch flat panel display, and costs US$79,000.

Cisco's TelePresence systems are equipped with H.264 video codecs, the Session Initiation Protocol (News - Alert), native 720p and 1080p high-definition cameras, native 720p and 1080p high-definition encoding/decoding, wideband advanced audio coding with low delay (AAC-LD), multichannel spatial audio with echo cancellation and interference filters to eliminate feedback from mobile devices.

Cisco has taken the unusual initiative of featuring their system in TV commercials, and in a product placement coup, the TV series *24* used Cisco TelePresence for conversations involving the characters of Vice President Noah Daniels and Russian President Suvarov.

The Cisco TelePresence 1000 accommodates seating for one or two participants on each side around a virtual table for up to four participants in a point to point meeting, or up to 72 participants in a multipoint meeting. Integrated equipment for optimized user experience includes one 65-inch plasma screen, a speaker and microphone with echo cancellation, lighting, and an ultra-HD codec and camera specially optimized to the small-group environment.

The Cisco TelePresence Manager software integrates with enterprise groupware and Cisco Unified Communications Manager, so scheduling is not more difficult than sending a calendar invitation. You can launch both point-to-point and multipoint calls by pressing a button on the meeting-room phone.

And, in a big interoperability push, Cisco TelePresence endpoints (Cisco TelePresence Systems 1000 and 3000) can now interoperate with other videoconferencing endpoints. Product enhancements include software updates to the 1000 and 3000 endpoints, Cisco TelePresence Multipoint Switch, and Cisco TelePresence Manager to enable full interoperability through integration with Cisco Unified Videoconferencing solutions.

Of course, Polycom (News - Alert) (www.polycom.com), founded in 1990, was in the conferencing business before just about anybody else. In October 2001 they acquired PictureTel Corporation and what at the time was the best PC-based group video communications architecture. This worked well with the next-gen rich-media network infrastructure products and multipoint control units, firewalls and gateways that Polycom had acquired from the February 2001 acquisition of Accord Networks. In 2006 Polycom added the RPX 200 Series and 400 Series telepresence systems to its line of videoconferencing solutions. Polycom also makes the very popular Polycom VSX line, and it competes at the high end with boardroom HD video conferencing in the form of its high-definition Polycom HDX 9000 Series. the HDX 9000 supports up to 1280x720 resolution at 30fps (720p), uses a maximum bandwidth of 6 Mbps for HDX 9004 and 4 Mbps for the HDX 9002 and HDX 9001.

Polycom continues to develop and market a wide range of easy-to-use and cost effective voice and video communication endpoints, video management software, web conferencing software, multi-network gateways, and multipoint conferencing and network access solutions. They also offer The Polycom Office, a fully integrated, end-to-end video, voice, data and web collaboration solution.

The Service Provider Angle

Some companies can't be bothered (or afford) lots of video equipment on the premises. For them, service providers such as Verizon Business (www.verizonbusiness.com) have jumped in to introduce the marvels of videoconferencing.

The Cisco TelePresence 3000 features three 1080p flat panel displays.

Verizon's new HD video service is being touted not just as a cost-slasher but as a way to "reduce carbon emissions associated with business travel".

The service provides a screen frame size of 1280x720 pixels at 30fps. Your equipment must support HD video on both ends. Four access speeds are available – 1.15 Mbps, 1.47 Mbps, 1.54 Mbps, and 1.92 Mbps. The system supports hybrid calls (mixed IP and ISDN transport on the same call), advanced global facilities supporting IP and ISDN transport, end-user training, round-the-clock global tech support and flexible solutions ranging from self-service to full outsourcing. Verizon Business can act as your corporate scheduler, assigning activities in conference rooms. Participants with dissimilar codec speeds can participate in the same video conference. Participants who do not have video access can join in via an audio-only connection.

Videoconferencing has progressed over the years from science fiction and exhibits at World Fairs, to hobbyist implementations, to klunky rollabout devices and now to sleek, high-bandwidth, high-definition systems from individuals, groups or large conference rooms. It's about time. IT

Richard Grigonis is Executive Editor of TMC's IP Communications Group.

The following companies were mentioned in this article:

Cisco Systems
www.cisco.com

Hewlett-Packard
www.hp.com

LifeSize Communications
www.lifesize.com

Polycom
www.polycom.com

TANDBERG
www.tandberg.net

Teliris
http://teliris.com

Verizon Business
www.verizonbusiness.com

IPTV – Money Maker or Loss Leader?

By: Richard "Zippy" Grigonis

The IPTV business reminds one of the airlines of the 21st century or the railroads of the 19th – you know they're big and customers love them, but somehow few companies actually make any money selling the basic service.

At Oracle (News - Alert) (www.oracle.com) Rajeev Tankha, Director, Product and Solutions Marketing Communications Global Business Unit, says, "I've been involved in IPTV for about three years. I've been involved in about 20 different projects with IPTV providers in Europe and the Americas. My focus was in provisioning and later assurance issues, since the two areas are really linked."

"We were originally treating provisioning like any other service," says Tankha. "Our approach was that automation was necessary and all that, and we were involved with a large IPTV project for Bell Canada. They asked us to help them with configuring Microsoft applications servers. We helped them build their APIs into the Microsoft server, which was fairly immature at that particular point in time. We delivered our project in about three months' time, and yet to this day what we did hasn't been launched. The biggest challenge we found was that most phone companies have taken the traditional approach to launching IPTV – to go and configure the networks and then think about other operational issues afterward as the service matures. However, IPTV gives service providers a slightly different challenge. All service providers say they're trying to differentiate themselves from cable TV providers or satellite providers. It doesn't matter if the person is selling their IPTV service in Hong Kong such as PCCW or in Spain like Telefonica, or in the U.S. like AT&T. Everybody wants to be different. But that's not the point."

"IPTV by its very nature has three major issues which people are addressing," says Tankha. "First is content. How does the provider get the right content? In North America the challenges are: How do you secure the content? Why would a company such as Disney send content to a phone company when they may already own such things as cable companies? The way providers have successfully dealt with content is to go and acquire the expertise of getting this content and packaging it. They're still learning how to do this, but they're fairly well on their way."

"The second issue, which is very well understood by most phone companies, is the network in which they have made major investments," says Tankha. "Some of those DLS technologies, IP DSLAMs, and Verizon's fiber-to-the-home are all very well understood by providers. They know how to deploy networks. Most companies involved in IPTV have given themselves about six months to a year to launch their services. But in fact these services take an average of about 24 months to launch."

"The third challenge for all these phone companies is not about being different, but rather about being the same," says Tankha. "We all grew up watching TV. You can go to your local store, buy a TV, bring it home, plug it in and turn it on. Cable, satellite and terrestrial TV companies have had 40 years to become expert in the delivery of content and service. And they've moved on to offer PVRs and digital content and digital interactive TV. Some times to compete you must look like everybody else."

Tankha elaborates: "So the first thing we ask phone companies is, 'Hey guys, can you be just like an existing TV service and stop thinking like you should be different?' When we talk about being different, it's not about content. Can they deliver a service of the same type with which users are already familiar? In many cases the phone companies are stumped. Look at AT&T. They made major announcements on the U-verse project three years ago, and it took quite a while for AT&T to get its whole system up to the proper speed and levels of acceptance. They discovered they needed to coordinate activities across various groups and various systems to deliver a TV service. So the big challenge today is that it

doesn't matter whether you've already launched a service or are planning to launch. If you dig underneath the surface of a phone company, you'll find that customers abandon these services rapidly. The CEO of Belgacom stood up at an IPTV event in 2006 and said, 'We launched a TV service and we garnered 40,000 customers in six months.' But what he said later was that they needed six to seven truck rolls per customer to get the service working."

"I held a workshop in March 2006 and spoke to Telfonica," says Tankha. "Their marketing manager had proudly proclaimed that they had 200,000 subscribers. But in talking with their operations people, people who do DSL provisioning, people who handle content delivery, people who are responsible for getting the service out to customers, the real picture emerged. The first people I met did DSL-related provisioning. They told us that it takes approximately seven days to deliver a standard definition DSL-based service which is appropriate for a TV service. That's funny, because in Spain and many other countries, everybody can get TV service for free over the air immediately. If somebody wanted two IPTV-based TVs in the same home, they couldn't do it. They found that within seven days' time, 50 percent of the orders were cancelled, because they couldn't deliver the service fast enough, or they couldn't tell the customers when exactly the service would be delivered."

"A Canadian provider I know of launched their service in 1999," says Tankha. "It was also taking them six to eight truck rolls per customer to get the service up and running. The provider charged $50 a month for their TV service. They spent between 50 and 60 percent of that on content providers. The service provider was left with at best $25. Each truck roll in Canada was costing $250 to $300, just in terms of manpower. Thus, every truck roll cost a whole year's worth of profitability. That doesn't count the investment in the IT system, the network, and other aspects of the infrastructure."

Adds Tankha: "These challenges have not gone away. I discussed them a few months ago with providers from India and Brazil. We have a customer in Czechoslovakia that wanted to try self-provisioning by subscribers as a solution. That actually doesn't work because, unlike a phone company, the network now extends into the home. When trying to do self-provisioning, you find that you still need several truck rolls. A small CLEC in North America we know of with 3,000 IPTV customers had to send out trucks time and again, but it wasn't because the service wasn't working or things weren't provisioned properly. Instead, the company couldn't understand what the home environment looked like – where the TV was going to be installed, whether there was a phone plug near a power socket, did they need a power cord or extension cord, was a new set-top box going to be provided, and so forth. Without a necessary extension cord, a whole new truck roll had to be scheduled. Other issues involved a disconnect between what provisioning was happening in the network and what services were actually required in the home. Several set-top boxes had to be changed. Then you have people who change orders while waiting for the service to arrive. They may decide to buy more than one HDTV, for example. Obviously the business cases of the phone companies delving into IPTV can easily erode."

Set-top Box = Residential Gateway

Bureaucratic and logistical snafus haven't stopped the technological march of IPTV, which promises to bring exciting (not to mention churn-reducing) services to the masses.

It now appears that, in an IPTV world, the formerly humble set-top box is becoming a sort of super-residential gateway.

It now appears that, in an IPTV world, the formerly humble set-top box is becoming a sort of super-residential gateway.

Take Amino Communications (www.aminocom.com), for example, which designs and supplies electronic systems, software and consultancy for IPTV (telco triple-play applications), on-demand video and in-home multimedia distribution. Amino supplies the AmiNET series of set-top boxes and gateways for deployment in the telecommunications, broadcast and hospitality markets. The offer MPEG-2 and MPEG-4 encoding, standard and HD TV, personal video recording (PVR) and home networking. AmiNET products are typically supplied with the Amino IntAct IPTV software stack pre-loaded. Under its IntAct brand name, Amino licenses hardware designs together with the IntAct IPTV software stack to OEMs.

They see today's TV in terms of two basic environments: Internet TV and Telco TV. Their set-top boxes can bring Internet TV from the PC to TV using Microsoft Windows Media 9 and the Opera Internet browser, which satisfies the burgeoning world of niche or 'long tail' content. The box plays streams directly from standard Window Media servers and supports an expanding range of features including WM-DRM 10 and Orb networks' MyCast software (the world's first integration of the Orb technology in an IP STB). MyCast software on a PC can broadcast video, audio and picture files that the AmiNET boxes can then play on the TV screen. Thus, the Amino Internet TV solution can both deliver live streams direct from the Internet and play downloaded content stored on the home PC. Moreover, the AmiNET125 set-top box can be used with coax-to-Ethernet home net-

working adapter products such as Readylinks SmartFoot to bring Internet TV to any room in the home.

In terms of the slicker Telco TV, IPTV and Video-on-Demand (VoD) applications are supported. The AmiNET set-top boxes now enable such additional services such as videoconferencing, gaming and VoIP. Rick Sailor, Amino's Vice President of Sales for the Americas, says, "The industry has been doing MPEG-2 encoding for the past three or four years, and we're seeing a migration to new customers running MPEG-4. We at Amino have been doing MPEG-4 standard definition for about two years with our AmiNET124, and now we're brought to the market the AmiNET125, which has a bit more horsepower and a different chipbase than the 124. The 125 does both MPEG-2 and MPEG-4 standard def, and the box can now run Windows Media 9. We're even going to put Flash capability in it later in 2008. So we're looking to give the consumer the ability to watch his 'basic' service channels that he gets from a service provider, as well as to jump to the Internet to look at other videos and bring those to the TV as a monitor-type function. We showed it at the IBC last fall and we won a 'CSI Product of the Year Award 2007' in the category 'Best IPTV technology', ahead of the Microsoft Xbox360 solution for IPTV, and Packetvision's IPTV Addressable Advertising Service."

"Another new set-top box we debuted in June 2007 is the AmiNET130," says Sailor, "which was released as an MPEG-2 device, capable of both standard def and high def. We're just getting the software stack finished on that, to do MPEG-4 standard def/high def. So again, you'll have a combination box, and we also plan to add Windows Media 9 to it later in 2008 and then Flash. Until now I've been talking about our single-stream set-top boxes. We're also currently testing our AmiNET530 which is an MPEG-2 or 4 standard def/high def box supporting PVR."

"Supporting MPEG-4 at high def has certainly been a challenge for everybody in this industry, both the encoders as well as the different set-top box manufacturers," says Sailor. "They've had to come up with a software stack that can do MPEG-4 HD as well as the MPEG-2 HD encoder."

"I've got one of the AmiNet125's running Windows Media 9 and I've been visiting different websites with it," says Sailor. "I'll go out on a limb and say that there's no such thing as a standard Windows Media 9 website. They're all different. When you visit some sites with a laptop the first thing the site asks you is if you want to download a component to watch videos from the site, because they've configured it a bit differently than other sites. With the set-top box you don't have the ability to perform that kind of download. We just put standard Windows Media 9 in the box. As a result, some websites I can view perfectly, and others I get video and no audio, and others I get audio but no video. It all depends on what they've done to the encoder."

"So that's where we are from a hardware perspective," says Sailor. "The different encoder manufacturers are getting their equipment configured and we've worked with them on a weekly and almost a daily basis to ensure that things such as MPEG-4 high def are working."

"Many service providers have divided up their network between Internet and video delivery," says Sailor. "Let's say you've got a service provider that's doing video over copper-based DSL. They've giving the consumer, say, 1 Mbps of Internet traffic on the VLAN, and the other 12 or 13 Mbps of bandwidth is on a VLAN to the video. So you can watch three streams of video at the same time, yet you only get one VLAN of Internet traffic. The question then becomes, 'Does the consumer have enough bandwidth to watch Internet video?' Some providers may only give the consumer a 512 Kbps pipe, which means you can't watch 600 to 700 Kbps of Windows Media 9. So it will be interesting to see how bandwidth gets delivered and apportioned."

"You've probably heard that AT&T will be reducing the amount of Internet traffic their customers can access because they're consuming too much of the backbone capacity," says Sailor.

"The other caveat concerns the content providers." says Sailor. "The content has to go through the qualification stage, to convert it or reduce it down from an MPEG-2 to an MPEG-4 format and yet still maintain the video quality. Then you've got to deal with encryption, transmission, and the set-top box has to do the decoding successfully at the other end. We're all just a link in the chain and the MPEG-4 chain is still in the process of being forged."

"The video, in all fairness, is probably a break-even in triple-play situations," says Sailor. "At the end of the day, by the time your pay your content providers, your encryption company and all other 'mechanics' in the chain, video is not a big money-maker. However, video-on-demand does bring in some nice revenues. But a provider's Internet connection is a real breadwinner in triple play. And of course they'll get their standard 12 or 14 percent POTS return, because that's a state issue, from a tariff standpoint."

"Interestingly, of triple-play customers, you've got about a 20 to 25 percent uptick in the number of those subscribers who go ahead and order not just the full triple-play service but also upgrade their Internet to the 'enhanced' features, if you will," concludes Sailor. "This of course results in better revenue generation for the service provider."

So perhaps the saving grace of IPTV isn't its money-making capability, but the sheer glamour that it offers to service providers, which keep the paying customers happy. IT

Richard "Zippy" Grigonis is Executive Editor of TMC's IP Communications Group.

The following companies were mentioned in this article:

Amino Communications
www.aminocom.com

AT&T
www.att.com

Microsoft
www.microsoft.com

Oracle
www.oracle.com

iAgentNetwork

Targeted Telecom Marketing

Target Marketing to the Telecom Industry

Master Agents
Agents & Distributors
VARS, VADS & System Integrators
VoIP Agents - **NEW!**
Carriers, CLECS & Resellers
International Agents & Wholesalers

- **Email Blasts**
- **Interactive Website**

877-867-2553
sales@iagentnetwork.com
www.iagentnetwork.com

Publication Partners:

CHANNEL VISION | INTERNET TELEPHONY | NEW Telephony | PHONE+ | VoIP Business News

Mobile TV Goes Forth…

By: Richard "Zippy" Grigonis

The idea of bringing TV services to mobile phones has in recent years titillated consumers, network operators and content providers. Like its larger and more stationary cousin, IPTV, Mobile TV over cellular networks (also called "MobileTV" and "Out-of-Band TV") could allow for video-on-demand (VoD) as well as traditional "linear" and live TV programs, thus enabling personalized, interactive TV optimized for the mobile user experience. Another possibility is the on-demand (or else automated subscription downloading) of mobile TV podcasts stored directly in the handset, so the user can view content at an appropriate time, even when the mobile device is unable to make a wireless network connection.

But what form of mobile TV will be the most popular? As telecom industry legend Brough Turner notes elsewhere in this issue, "… forget mobile TV broadcasting and think video-on-demand… Of those actually using mobile video-on-demand, the most popular content categories are music videos, movie trailers, weather, sports action clips, comedy videos, cartoons and amateur video shorts. Note the strong preference for short format videos … 85% of mobile video viewers watched content sent or pointed out by a friend or family member while only a third had watched content offered by the operator… What people want is mobile, on-demand access to the broadest possible set of video clips and easy ways to share cool content with family and friends."

In 2007 Juniper Research (News - Alert) reported their expectation of $10 billion in global revenues for mobile TV by 2011. A 2008 ABI Research study entitled "Mobile TV Services" predicts 464 million mobile TV subscribers by 2012, partly as a result of 3G network expansion involving video-capable handsets, increased content availability and flat-rate plans for mobile video. ABI sees the greatest mobile TV growth in the Asia-Pacific region (from 24 million in 2007 to more than 260 million by 2012), such as South Korea and Japan. In North America, uptake will occur in 2008 as after AT&T (www.att.com) launches its MediaFLO service and Verizon Wireless (www.verizonwireless.com) continues to expand its own MediaFLO empire. (Of course, various on-demand mobile video services will appear too.) This is possible using technology complaint with one of four Mobile TV broadcasting standards:

In 2007 Juniper Research reported their expectation of $10 billion in global revenues for mobile TV by 2011. A 2008 ABI Research study entitled "Mobile TV Services" predicts 464 million mobile TV subscribers by 2012

- DVB-H (Digital Video Broadcasting-Handheld), one of the more favored standards.
- DMB (Digital Multimedia Broadcasting).
- TDtv that combines the IPWireless (www.ipwireless.com) commercial UMTS TD-CDMA solution and the 3GPP Release 6 Multimedia Broadcast Multicast Service (MBMS) to deliver up to 14 300 Kbps channels in a mobile operator's existing 5 MHz of unpaired 3G spectrum. MBMS broadcasts over 3G networks allow any number of users to simultaneously share a traffic channel as they view the same program in the same geographical area.
- 1seg based on Japan's ISDB-T (Integrated Services Digital Broadcasting-Television).
- MediaFLO, developed by Qualcomm, favored by Verizon and AT&T.

These mobile TV systems generally fall into two categories: Two-way cell networks and one-way dedicated broadcast networks. Each of them has their pros and cons. Most operators agree that the fastest way to get mobile TV up and running is via minor modifications to existing 3G (WCDMA/HSPA) networks.

In 2007 in the U.S., Sprint Nextel Corporation, Comcast Corporation, Time Warner Cable, Cox (News - Alert) Communications and Advance/Newhouse Communications launched "Pivot", a "quad play" integrated service enabling consumers to link their mobile

Visit TMCnet.com's

Open Source PBX Online Community

http://opensourcepbx.tmcnet.com

Your Source for Open Source:

- The Latest News
- Feature Rich Content
- Tutorials
- Ask the Experts
- Instructional Videos
- White Papers
- Case Studies
- Product Spotlights

Powered by:

TMCnet™

Because it must work!

empowered by SANGOMA

Universal Telephony Cards for Superior Voice Quality. To learn more call 1.800.388.2475 ext. 2 or visit www.sangoma.com.

phone service with their home digital phone, and some high-speed Internet services and digital cable services. Pivot relies on both wireline and wireless networks to deliver to customers capabilities such as one-button access to the Internet, live mobile TV, access to home TV listings using a familiar programming guide, access to home email and voicemail and making unlimited calls between their cable home service and mobile phones. Pivot enables such "converged" innovations as allowing users to program their DVR with their mobile phone. It's been launched in 40 metro markets.

Currently, free-to-air mobile TV services or trials exist in Finland, India, Japan, Korea, the Philippines and Russia. In total there are about 130 mobile TV services (both trials and production systems) worldwide.

For example, Nokia Siemens Networks (News - Alert) (www.nokiasiemensnetworks.com) has announced a joint collaboration with Global Mediacom (www.mediacom.co.id) — the largest and only integrated media, broadcasting, entertainment and telecommunication group in Indonesia — to launch a commercial broadcast mobile TV service in Indonesia, based on DVB-H technology. It's the biggest DVB-H agreement yet signed by Nokia Siemens Networks, and the company will handle the end-to-end systems and services, including consulting, implementation of the entire broadcasting solution and network, systems integration and the relevant business applications. Global Mediacom is also discussing with Nokia about Nokia providing DVB-H integrated devices such as the Nokia N77, and work with Nokia Siemens Networks on joint marketing activities to Indonesian consumers. Both companies will launch the first services for Indonesia's Jabodetabek area in the first half of 2008.

FLO TV (www.flotv.com), delivered by MediaFLO USA Inc. (www.mediaflousa.com) doesn't offer video clips — instead, it's based on providing a selection of live, simulcast and time-shifted full-length entertainment, news, sports and kids' programming. It presents well-known networks and channels as CBS, Comedy Central, ESPN, FOX, MTV, NBC and Nickelodeon, so programming partners and advertisers can extend their reach to consumers, who can continue to watch their favorite shows wherever they go. The interface resembles a familiar TV remote control, allowing users to choose shows from an on-screen programming guide and flip from one channel to the next quickly.

Verizon Wireless, America's Number 2 mobile phone operator after AT&T, offers the FLO TV service through its V CAST mobile TV. Verizon's Wireless V CAST Mobile TV service is now available in more than 45 markets in different tiers for $13 to $25 per month, aside from regular phone service charges.

Currently, in the Americas, one interesting, major player is MobiTV (News - Alert) (www.mobitv.com), a privately-held company founded in 1999 and headquartered in Emeryville, California. MobiTV delivers more than 160 live and VoD premium and primetime programming channels, satellite and digital music services from the chief broadcast and cable television networks and foremost music labels to more than 200 kinds of mobile devices across multiple networks (e.g., 3G, WiFi, WiMAX and DVB-H), serving over 3 million subscribers.

MobiTV's video streams employ MPEG-4, H.264 and AAC up to 30 fps. The system is interactive, with bi-directional communication for polling, mCommerce and click-thru advertisements.

And speaking of ads…

To Advertise or Not to Advertise?

There is still some confusion over how much of mobile TV should be sent Free-to-Air (FTA), unencrypted and available without subscription. The concept of FTA is a bit fictional, since all viewers do ultimately pay up in form of direct license fees (as in the UK), voluntary donations (as in the case of the American Public Broadcasting Service) or advertising and forms of commercial sponsorship (U.S., Japan). Mobile phone users currently do subscribe to Mobile TV services, though there are a greater number of viewers for FTA mobile TV broadcast services.

Over at Aricent (www.aricent.com), Deepak Mehrotra, VP of Mobile Terminal Solutions, syas, "We're involved in Mobile TV in two ways. The first is to improve the user experience, and the second is to take mobile TV and integrate it with location-based services so as to allow the insertion of location-based advertising into the mobile TV experience. That latter idea is bit more forward-looking."

"It's presently unknown whether people will accept advertisements in general on a mobile handset," says Mehrotra. "But advertisements

Honoring the 'Best of the Best' in Contact Center Innovation

Calling all trendsetters.

- Launched a new product that broke the mold?
- Elevated an existing product or service to the next level?

Customer Interaction Solutions Presents:

The 9th Annual TMC Labs Innovation Awards

Honoring

Products that demonstrate raw innovation, unique features, and significant contributions toward improving communications technology.

While innovation is frequently a question of firsts, often it is taking an existing idea and improving upon it or looking at it from a slightly different perspective. Challenging established standards, and then introducing different approaches to achieve distinctive results certainly helps to define innovation within this industry.

Granted not only to the best-selling products, but instead to those demonstrating raw innovation, uniqueness, and representing a significant contribution to the industry.

Innovative Times Call for Innovative Marketing

With advancing technologies furthering development in the contact center industry, new companies entering the market and new and improved products and services are being created all the time. With call center technologies growing by leaps and bounds, new companies, new products, and new services are being created all the time. The best way to stand out is by having the distinction of being a TMC Labs Innovation Award winner. With the market growing so quickly, there's never been a greater need to associate this prestigious award to your product.

The TMC Labs Innovation Awards winners will be published in the September and October 2008 issues of *Customer Interaction Solutions* magazine.

Nominate Your Product or Service

Become a member of the elite group of TMC Labs Innovation Award winners. Apply Today!
Early bird deadline: June 19, 2008
Final deadline: July 1, 2008

For more information and to apply, please visit:

http://www.tmcnet.com/1681.1

are generally acceptable to users if they're part of a TV experience, so knowing where the terminal is situated is helpful in targeting ad insertion. When you're watching TV at home, the local cable operator knows that a particular set of signals is going to a certain Zip code, and they can send local advertisements there. Customers are used to that. Handsets, however, can be anywhere in the country, so inserting the appropriate advertising content based on the location is expected to be something that both the carriers would like as well as the advertisers. That's a new area that they're looking at. There are no deployments in the short-term, but the work is continuing."

"It's presently unknown whether people will accept advertisements in general on a mobile handset," says Mehrotra. "But advertisements are generally acceptable to users if they're part of a TV experience..."

"In the first area, we work on the functionality of changing channels, turning on DVRs from the phone, and making the direct experience very positive," says Mehrotra. "We work with our design division to develop easy usability for consumers, and usability is a part of the whole experience. We've done some projects in this area and continue to do so. We recently made a joint announcement with Ortiva Wireless (News - Alert) about our new development center. We will provide R&D services to support product development, quality assurance and support for Ortiva's Media Shaper platform for mobile TV. This technology allows the user experience to be optimized even in geographical areas where the bandwidth changes quite rapidly because of radio propagation delays. The last thing we want is to have the customer's experience of watching mobile TV get distorted or dropped. So, this technology that we're working on with Ortiva optimizes the wireless bandwidth that's available at a particular time and it makes the overall user experience as good as possible. TV is one possible application. The technology can be applied to other mobile video applications."

"At the moment, we're focusing on MediaFLO for the U.S. market," says Mehrotra. "We have also worked on mobile video technology for European markets. We see mobile TV as being popular primarily with consumers. And even then, its popularity is directly proportional to how it's priced."

Aricent's partner, Ortiva Wireless (www.ortivawireless.com) is said to offer the industry's only commercial solution for proactive management of mobile video, allowing service and content providers to drastically improve control, quality, and efficiency of rich media content delivery. Ortiva's Media Shaper technology increases network efficiency and improves video coverage density for mobile operators.

Moreover, content providers and aggregators can leverage Ortiva's advanced, hosted Mobile-CDN service to manage and scale video delivery, and control insertion of additional targeted viewer content, all without having to buy more equipment. Ortiva Wireless can dynamically "shape" the content, giving subscribers the smoothest video and clearest audio experience possible regardless of fluctuating and hostile network conditions.

In the meantime, Motorola (www.mot.com) recently introduced the Motorola Mobile TV DVB-H compatible DH01 device and a mobile TV broadcast solutions portfolio. The pocket-sized personal media player can handle live TV, on-demand clips and programs saved on a DVR. With a 4.3-inch Wide Quarter Video Graphics Video Graphics Array Screen supporting up to 16 million colors at 25 fps. The DH01 device is non-proprietary, supporting not just the DVB-H broadcasting standard but also open standards interfaces across devices, networks and application service platforms. It also has a five-minute memory buffer so you can pause during live TV viewing, and a rechargeable battery that delivers up to four ours of playback time.

Motorola's mobile TV solution includes network infrastructure (DVB-H transmission network equipment, video head-end center equipment, an interactive application services delivery platform), services (to design, deploy and optimize the network in addition to application services); and the devices themselves.

At the moment, the world awaits AT&T's imminent launch of its live MediaFLO-based mobile TV service. The service will debut with eight live, linear channels offered by Qualcomm's American MediaFLO subsidiary: CBS Mobile, Fox Mobile, NBC2Go, NBC News2Go, ESPN Mobile TV, MTV, Comedy Central and Nickelodeon.

Mobile TV, with its short "mobisodes" (the mobile successor to TV episodes) may end up reducing our respective personal attention spans, much the way children's educational television of the 1970s and 1980s did with two and three-minute video and film segments then in vogue. And it's yet another example of how we can run, but can't hide from advertising. Even so, mobile TV's advantages, such as accessing instant news and other content, far outweigh any possible disadvantages. IT

Richard Grigonis is Executive Editor of TMC's IP Communications Group.

The following companies were mentioned in this article:

Aricent
www.aricent.com

AT&T
www.att.com

Global Mediacom
www.mediacom.co.id

IPWireless
www.ipwireless.com

MediaFLO USA Inc.
www.mediaflousa.com

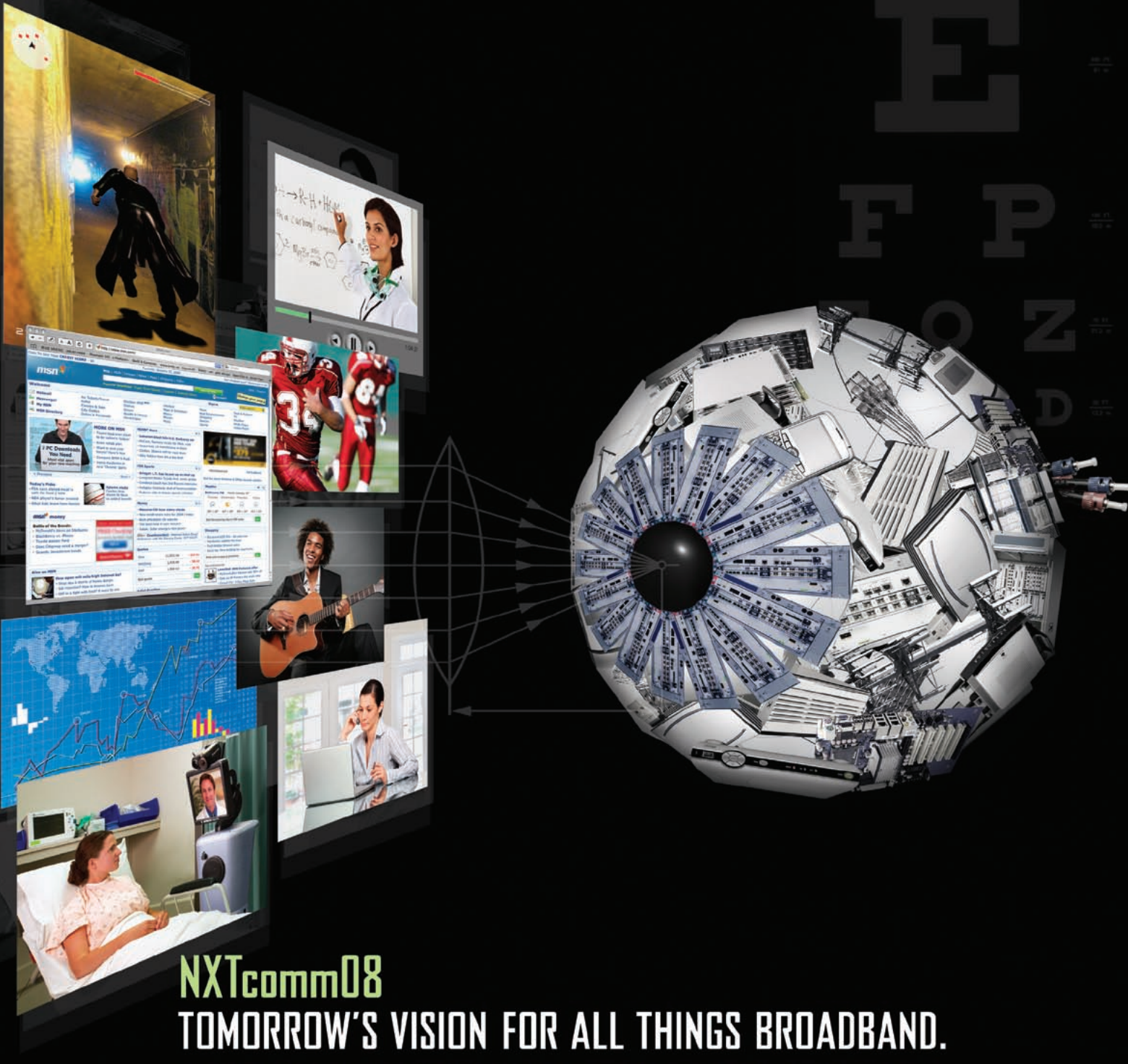
MobiTV
www.mobitv.com

Motorola
www.mot.com

Nokia Siemens Networks
www.nokiasiemensnetworks.com

Ortiva Wireless
www.ortivawireless.com

Verizon Wireless
www.verizonwireless.com



NXTcomm08

TOMORROW'S VISION FOR ALL THINGS BROADBAND.

THE ONE EVENT DELIVERING THE ECOSYSTEM OF NETWORK-ENABLED VOICE, VIDEO, AND DATA.

From technology suppliers to content providers, NXTcomm08 is where all of the global players in the communications ecosystem converge. Network with decision makers. Explore new products and services. Gain invaluable insight. With more than 20,000 attendees and 500 exhibitors, you'll see how the ecosystem will evolve and breathe new life into your own success.

REGISTER NOW AT NXTcommShow.com. USE PASS CODE PAB1 FOR FREE EXHIBITS REGISTRATION, A SAVINGS OF $75 USD.

NXTcomm08

JUNE 16-19, 2008 | LAS VEGAS, NV, USA
EXHIBITS: JUNE 17-19, 2008
LAS VEGAS CONVENTION CENTER
NXTcommShow.com

SPONSORED BY TIA USTELECOM UNITED STATES TELECOM ASSOCIATION

CO-LOCATING WITH infoComm08 INFORMATION COMMUNICATIONS MARKETPLACE

INCORPORATING broadband wireless WORLD08

QoS in Enterprise Networks

By: Richard "Zippy" Grigonis

Back in the good old days before VoIP, an IT guy like Yours Truly could rely on service level agreements (SLAs), even if they were totally wrong, since data is more forgiving of network hiccups than real-time services such as voice and video. In those days, a simple handheld reflectometer was all you needed to test your network's Quality or Service (QoS) – which was whether or not a cable was broken.

Today, we have far more sophisticated tools that must work in contemporary IP and Fixed-Mobile Convergence (FMC) environments. For example, AirMagnet (News - Alert) (www.airmagnet.com) makes the ingenious AirMagnet VoFi Analyzer that is claimed to be the first of its kind – a professional monitoring and troubleshooting tool for Voice-over-WiFi. With VoFi Analyzer a technician can directly monitor the quality of every call whizzing over an organization's wireless LAN and automatically detect the sources of voice problems. The device can actively troubleshoot problems from the phone to the wired call manager. VoFi Analyzer has a built-in expert system that considers all the things that can go wrong with wireless voice, enabling it to quickly diagnose device-related problems, QoS problems, RF problems, WLAN problems and even wired network problems associated with Voice-over-WiFi.

As it happens, QoS is ultimately much bigger than packet loss, delay and jitter. It's about end-to-end quality of experience (QoE) for the user, which usually involves a set of hops through a hybrid network as complicated and bizarre as a picaresque novel. Companies both large and small have risen up to accept the challenge and help enterprises achieve toll-quality voice and video communications over IP.

At Computer Associates (News - Alert), now more commonly known as CA (www.ca.com), CA eHealth for Voice combines data collection across the voice network with performance monitoring, alerting, reporting and policy management for Avaya, Nortel and Cisco PBX, IP Telephony, voice messaging or unified messaging platforms. It helps you to pro-actively manage legacy, hybrid or IP telephony systems from one console. With CA (News - Alert) eHealth for Voice you can identify degradation of service issues such as maintenance warnings, trunk or port capacity thresholds, and other service-affecting issues on the PBX, IP PBX, voice or unified messaging platforms. Its capacity analyzer tools can determine the grade of service and assure sufficient capacity to handle traffic loads.

CA's Steve Guthrie, Director of Product Marketing, says, "When CA acquired Concord Communications (News - Alert) in June 2005 it actually ended up with several best-of-breed solutions which Concord had acquired relating to voice. These have been integrated into our CA product line."

"When you say 'Quality of Service' people immediately think of packet delay, jitter and loss," says Guthrie. "They want a calculated value which, more often than not, is some sort of MOS [Mean Opinion Scale] rating. I'm here to articulate today that, QoS is more than MOS. However, I want to acknowledge that we have at least four ways to compute MOS within our product set for managing voice and surely

MOS is important. Indeed, we enable it in the Cisco and Nortel worlds, for example, and our eHealth for Voice solution can pulls stats from a Cisco Call Manager or from a Nortel CS1000, and we can compute MOS just like everybody else. We also have a voice quality monitor component for eHealth for Voice that does simulated tests. So we have both proactive as well as static ways of computing MOS. We can also use the IP-SLA capability within Cisco routers to set up tests and we can do that with both our eHealth and Spectrum products."

"Thirdly, we have a growing partnership with Psytechnics (News - Alert) [www.psytechnics.com]," says Guthrie. "There are some common Psytechnics and eHealth customers that have done their own integration so they can use the Psytechnics tools. We're making our partnership more formal, so that customers can have a fourth choice, if your will, for computing MOS."

"MOS is important, and people like it, and we enable its measure," says Guthrie. "But we go further. It's more than QoS. When I think of quality of service, I think about the voice service as a holistic approach. It's not just MOS, it's how my voice service is performing from an infrastructure level as well. I've got to think about infrastructure management and how important that is."

"We hear people say they need to do four things regarding quality of service: First, 'How can I manage my service level and how can I communicate a service level performance against, say, a service level agreement?' That's classic SLA management," says Guthrie.

"Second, they want to resolve problems faster," says Guthrie. "These problems, while they may permeate as quality of service, or as bad phone calls, it's more than that, and the customer wants to look at what the problem is and how he can resolve it quickly. They also want

to be able to use historical trending and analysis to determine when the problem actually began. What was the seed that germinated that caused the problem? Customers also want to minimize the duration of downtime. One can use root cause analysis, for example, to discover that just because somebody picked up a phone and couldn't make a phone call doesn't mean that the phone is broken. It could be any number of other issues, such as a DHCP server that's gone off line, thus the phone no longer has an IP address and it can't register to a call manager."

"The third issue customers talk about is how they can minimize the cost of downtime," says Guthrie. "In this perspective they're thinking, 'How can you give me some advance warning that the service is starting to degrade and that if it's left untouched, it will lead to a total failure or a disruption?' They want to know how to minimize the number of outages, how they can minimize the number of outages and how they can have some early warning system that says, 'You've got a Call Manager that's running out of memory' or 'You've got a router that supports the voice service that's running out of memory' or 'You've got a DHCP server that's malfunctioning and is disrupting the service'."

"Fourth and finally customers want to know about capacity planning," says Guthrie. "They want to be able to use historical analysis and trends to say, 'If my network usage continues at the following pace, or if my voice service continues at the following pace, I'm going to require additional circuits.' Often times when I talk about capacity planning, I think about growing capacity but I also in this regard want to talk about de-commissioning capacity. So, for example, in the voice business today, it's important that as people make the transition from, say, a TDM-based voicemail system to an IP-based voicemail system, they can go and scrub the old data and look at it themselves, but what they really want to do is to have the ability to automatically scrub the data and analyze it and have something help them understand if their voicemail usage is growing the way it once did or if it is in fact declining. As they go to transition from TDM to IP, they want to have the ability to pause and say, 'Wait a minute. Do I need the same capacity that I once needed or have trends and behaviors changed to the point where I don't need as many voicemail ports as I once did?' Something similar can happen with the total number of calls. The number of calls is important because that's how we engineer our network, but if people are not making as many phone calls as they once did because of email, IM and so forth, customers ask 'Do I need to plan for a different, perhaps lower, capacity?'."

"I mentioned that de-commissioning underutilized assets is important here," says Guthrie, "and what we've found early in the IP telephony era was that people over-commissioned or bought more bandwidth than they needed because they thought that over-provisioning was the cure for quality of service. That's not only not a cure-all, but an expensive remedy. Now we're seeing people reverse course and use capacity planning as a way to ask themselves, 'Hey do I have more circuits than I really need?'."

Taking Things Seriously

Ceterus Networks' (www.ceterus.com) UTS and UTX platforms are transport solutions that enable Ethernet and legacy circuit-switched service delivery over copper or fiber to any location. They can deal with anything from carrier-class, fully redundant, multi-service applications, to small business integrated voice and Ethernet access services.

Mark McDonald, Vice President of Product Management at Ceterus, says, "I see QoS becoming more important every day. We do enterprise Ethernet deployments. Our particular technology carries Ethernet over DS1s, DS3s, OC3s and a SONET infrastructure. Up until probably the summer of 2007, our customers used fault monitoring capabilities in the DS1, DS3 or SONET gear to ensure that circuits were up and running and stable. Now things are more sophisticated. QoS also includes the ability to classify the traffic and prioritize it and schedule it. We have that capability. We have a number of stabilizing queues in our product and so if it comes in by port or by VLAN – primarily Layer 2 – they can 'mark' or 'color' the packets and if there's a congestion or failure in the network, we can adjust the bandwidth so that the high-priority traffic gets through. That's pretty standard stuff."

"But now I see that people are thinking more and more about how they would do all this on a native Ethernet domain," says McDonald, "where they don't have SONET or some other backhaul infrastructure to determine where the faults are or if the circuit is even operational. There are two standards that have been kicked around. One standard that's been approved since last summer is the 802.1ag continuity fault management, which defined the parameters and techniques you should use to determine the bit error rate on a native Ethernet link, so you can figure out the delay and delay variation, continuity checks, and things like that."

"People are now asking about this capability," says McDonald, "and they're putting dates on when they want it in their network and interoperating with their own equipment, dates which are generally in early 2008. By the second half of 2008 they'd like some standard inter-vendor interoperability."

McDonald continues, "The second standard in this group is the ITU standard Y.1731 or 'OAM functions and Mechanisms for Ethernet-based Networks' to support point-to-point connections and multipoint connectivity in the ETH layer along with capabilities to operate and maintain the network and service aspects of ETH layer. You hear both 802.1ag and Y.1731 mentioned together. A third item that's been around a bit longer and you hear more often is 'Ethernet in the First Mile' [EFM] which doesn't improve or replace the existing Ethernet. It's a set of additional specifications enabling users to run Ethernet over previously unsupported media, such as single pairs of telephone wiring and single strands of single-mode fiber [SMF], thus making EFM port types suited for use in subscriber access networks; i.e., networks connecting subscribers to their service provider. It also happens to involve some performance monitoring and fault monitoring capability for a single link, which is 802.3ah."

"Product selection in the near future will be influence by compliance with these new standards," says McDonald.

U4EA Technologies (News - Alert) (www.u4eatech.com) is a leading provider of multi-service business gateways that enable service providers to deploy IP communications solutions to SMB and enterprise customers. U4EA's all-in-one customer premises devices are supported by the company's QoS (GoS) mechanisms to protect delivery of converged VoIP, data and video services. The U4EA Fusion Series includes next-gen network signaling gateways used by carriers to interconnect legacy networks and equipment with next-gen networks.

U4EA's Peter Thompson (News - Alert), Chief Scientist, says, "One of the things that we see is a much broader-based consensus that you really need QoS. That's a change from a year or two ago, when many people thought that all you needed was enough bandwidth. You don't hear that so much anymore. That's because more people are now actually trying to use VoIP and other kinds of multimedia applications on

converged IP networks, and they realize that these don't work all the time unless you actually do something about things such as QoS. So there's been more of a progression and consciousness that this is important, and that's particularly the case in the service provider space, where providers know they must satisfy certain quality-of-experience expectations on the part of their customers."

"In the enterprise space there's a feeling that people are starting to get their QoS issues under control," says Thompson, "which tend to involve efficiency and cost. The price of having reliable VoIP may be high since some people still maintain a completely separate network connection, just for the VoIP. There's a sort of eternal vigilance concerning the utilization level of the WAN link and companies are pretty quick to upgrade bandwidth if it looks like the utilization is getting too high. Interestingly, Cisco still recommends that you must never use more than 30 percent of your link capacity for things such as VoIP. Of course, we're pushing the fact that if you use superior QoS technology, then you can get much more out of your link."

QoS is a Many-Faceted Thing

Virtela (www.virtela.com) is global network integrator enabling business solutions for multinational organizations. They enhance business processes by creating customized business solutions and managed network services that integrate into your existing network architecture. They can do everyting from Mobile Workforce Enablement to HD Videoconferencing.

Rob Pfrogner, Security Services Product Manager at Virtela, says, "Our play is as a global network provider, so we have global reach through our partners. We're able to reach pretty much anybody anywhere, because we have relationships with the local access providers worldwide. We've also strategically located our Policy Centers – which are basically data centers where we place our own equipment in order to install our own 'intelligence' into the network – and that makes up our backbone that stretches from Policy Center to Policy Center.

One of our challenges is providing a QoS when we happen to be stitching together different types of customer network segments. We have to make sure that everyone 'plays correctly' across our backbone, even though they may be using different technologies for QoS on their own network. A challenging aspect of QoS is making sure that whatever we start with is recognized and carried through or translated when we have to traverse, say, AT&T's network which reaches customer premises #1 and then Level 3's network which extends to customer premises #2."

"Ultimately, QoS is a complicated and many-faceted technology whose challenges are exacerbated when connecting multiple disparate networks," says Pfrogner. "Reserving bandwidth may be required for company A to assure their mission-critical application functions acceptably, while priority queuing is the preferred method for Company B. Virtela matches the needs of the application to the technology that fits best. If a deployed solution is underperforming, Virtela can change the QoS method to achieve the desired result."

In the face of a growing, hybrid network maintaining end-to-end voice and video quality is an ever-increasing challenge. Fortunately, sophisticated tools and policies for the enterprise – along with a bit of help by technology running on the service provider side – should keep multimedia communications crystal clear for some time to come. IT

Richard Grigonis is Executive Editor of TMC's IP Communications Group.

The following companies were mentioned in this article:

AirMagnet
www.airmagnet.com

CA
www.ca.com

Ceterus Networks
www.ceterus.com

Psytechnics
www.psytechnics.com

U4EA Technologies
www.u4eatech.com

Virtela
www.virtela.com

Voice Quality Monitoring — Supercharged Quality of Service

By: Todd Lattanzi, ADTRAN

As voice and data networks converge into a single communications network, Quality of Service (QoS) is of growing importance. QoS allows a network to provide better service to selected traffic and enables the network to handle both mission-critical and best-effort traffic on the same infrastructure. But what happens when there are problems with voice quality on this new converged network?

Today, when an end user complains of voice quality problems, an administrator has to check a number of areas like QoS configurations, interface errors and network utilization to find the cause. For calls across a Wide Area Network (WAN) connection between sites, there is no way to know if the problem is on the remote Local Area Network (LAN), the local LAN, or the WAN in between.

The solution lies in the ability to more closely examine the problem and determine where in the data stream the problem is occurring, why it is occurring and what can be done to correct it. QoS alone is not the answer. The answer lies in Voice Quality Monitoring (VQM).

VQM moves beyond QoS and can save time in the troubleshooting process for network administrators, value-added resellers (VARs),

managed service providers and carriers. With VQM, the time involved in troubleshooting the problem, determining the cause and working toward a resolution is significantly reduced. The result is a rapid return to a high-quality service experience for the VoIP user.

In essence, VQM allows the network administrator to examine the full data stream and identify problem areas down to the packet level in an easy-to-use graphical interface. To better understand how VQM works and the benefits it provides, let's examine some common problems encountered on a VoIP network.

The first parameter often examined when there is less than desirable performance on a VoIP network is the Mean Opinion Score or MOS. The MOS provides a numerical measure of the quality of human speech at the destination end of the circuit. The scheme uses subjective tests (opinionated scores) that are mathematically averaged to obtain a quantitative indicator of the system performance. To determine MOS, a number of listeners rate the quality of test sentences read aloud over the communications circuit by male and female speakers. A listener gives each sentence a rating as follows: (1) bad; (2) poor; (3) fair; (4) good; (5) excellent. The MOS is the arithmetic mean of all the individual scores and can range from one to five. Acceptable MOS scores are four and above. When an unacceptable MOS is noted, the cause must be determined because the call quality is illegible.

In addition to MOS, there are three primary areas that need to be examined to properly determine the cause of the unacceptable voice quality. These are delay, jitter, and packet loss.

Delay, or simply stated, the amount of time between reception of packets, is critical to voice quality. So much so that the ITU G.114 specification outlines a one-way delay of no more than 150 milliseconds, in order to meet the measure of a "high-quality" voice experience. It is this value that the packet network must be engineered to meet, at worst, and preferably beat it by a good margin.

Next is jitter. A VoIP conversation is made up of many thousands of packets. IP networks with all the other applications flowing over it will inherently affect individual packets of a conversation differently, resulting in variations in the total delay for a single packet. That variation is called jitter. Too much jitter is a bad thing. There are some mechanisms on VoIP devices to compensate for a small amount of jitter, called jitter buffers, but if the variations are too extreme, even the best jitter buffers will not be able to overcome the variation.

Packet loss can be a major issue in VoIP networks. The amount of loss experienced by a packet flow is affected by buffer exhaustion and intentional packet drops.

Buffer exhaustion is a result of congestion caused by oversubscription or rate decoupling. For example if there are too many Gigabit feeder connections to a single Gigabit uplink the result is oversubscription. The switch device only has a limited amount of buffer space to hold excess packets while it tries to transmit on the single uplink. Under nominal operating conditions, these links are typically not a problem. But, in a high traffic situation, it is easy to see where some traffic must be dropped.

Rate-decoupling is a common occurrence. In this instance, high-speed LAN meets a much lower speed WAN connection. For instance, the Gigabit link from a router is feeding traffic to a router that has only a 45 megabit connection to the WAN, which is less than one-third of the LAN's bandwidth. It is easy to see how the router would run out of buffer space.

Another parameter that is sometimes examined is out-of-order packets. Packets being sent out of order are not a problem. However, problems arise when there are issues on the receiving end of the stream and packets are not reassembled in the correct order.

The examination of these parameters is not new. In fact, there are standalone hardware and software packages that can be used to derive this data. However, this is typically presented in a rudimentary spreadsheet table requiring a great deal of work to make it easily understandable.

Historically, standalone systems that provide the data in a manner that is easier to use have carried a hefty price tag. Recently, some equipment manufacturers have begun offering VQM as a feature of their operating systems. While this is a relatively new development, it has received a warm welcome from network administrators. The VQM technology in these systems provide a user-friendly, easy-to-understand graphical interface that allows administrators to quickly identify problems upstream, downstream and even within an individual unit.

At view, VQM provides a look at all IP interfaces and details in a chart format the number of calls that were rated good, fair or poor quality. It also provides the ability to look at both past and active calls. Most users don't know what kind of quality problem they're experiencing during a bad call — they just know it sounds bad. VQM allows network administrators to quickly see the type of problem and investigate the most likely sources of trouble accordingly.

Let's Walk Through Some Real World Scenarios:

First consider a scenario where all users at a site complain about poor audio on all calls. Using VQM, the network administrator determines that there is a high level of packet loss in the network. Packet loss is often accompanied by interface errors — these errors will explain what is wrong. In our example, the network administrator sees that all of the switch ports connected to phones have detected alignment and CRC errors. These errors generally result from duplex mismatches. Looking deeper, the network administrator sees that the switch ports are statically configured for 100Mbps / Full Duplex operation. The phones, however, have been configured for auto-negotiation. Because the switch is statically configured, and the phones are auto-negotiating, there is a duplex mismatch, leading to interface errors. These errors cause packet loss; and lost packets cause poor audio.

Figure 1

In Figure 1, the network administrator watches an active call and sees that there are short cycles of packet loss on the audio stream coming from extension 3015.This likely means there are errors on a network interface somewhere between the phone and the router.

Looking at other past calls, the administrator sees that this is not the first call to experience packet loss. The problem exists somewhere off of Ethernet 0/2. (See Figure 2.)

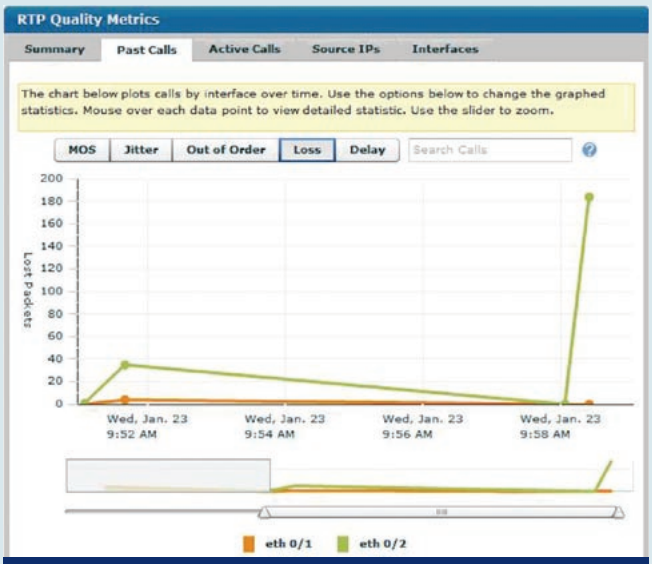


Figure 2

When the network administrator looks at the switch port connected to the extension 3015, he notices some errors. The key errors are alignment errors and CRC errors. (See Figure 3.) These problems suggest a duplex mismatch — in particular, they suggest that the local link is configured for full duplex operation (as also indicated in the stats), but the other side is running half duplex. The problem is that the switch has been

```
NetVanta1335A#show int sw 0/1
swx 0/1 is UP, line protocol is UP
  Description: POLYCOM-00:04:f2:10:dd:2b
  Hardware address is 00:A0:C8:29:4F:1D
  100Mb/s, full-duplex
  ARP type: ARPA; ARP timeout is 20 minutes
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 736 bits/sec, 1 packets/sec
    Queuing method: fifo
    Output queue: 0/256/0 (size/max total/drops)
    50049 packets input, 10889564 bytes
    50048 unicasts, 1 broadcasts, 0 multicasts input
    0 unknown protocol, 0 symbol errors, 0 discards
    59 input errors, 3 runts, 0 giants
    0 no buffer, 0 overruns, 0 internal receive errors
    16 alignment errors, 30 crc errors
    78631 packets output, 16880557 bytes
    77010 unicasts, 480 broadcasts, 1141 multicasts output
    0 output errors, 0 deferred, 0 discards
    0 single, 0 multiple, 0 late collisions
    0 excessive collisions, 0 underruns
    0 internal transmit errors, 0 carrier sense errors
    0 resets, 0 throttles
```

Figure 3

configured for static speed and duplex settings, whereas the phone is auto-negotiating speed and duplex.

When examining historical calls, VQM displays the number of Real-time Transport Protocol (RTP) flows per interface and provides statistics such as MOS, jitter, delay and loss. It allows the network administrator to search by a number of different criteria including extension, user and time of day. Each call is reflected as a data point. Both inbound and outbound calls can be viewed. Once any data point is selected, a wealth of data is displayed in an easy-to-ready graphical manner. Much of this data is the same as that you would derive from the Command Line Interface (CLI), but it is easily accessible and presented in a much more user-friendly manner.

Active calls are polled every seven seconds providing near real-time data when actively troubleshooting calls. The administrator can actually watch calls as they occur. The same type of data is available on active calls as past calls.

Voice Quality Monitoring provides the ability to look at each source IP and view a range of MOS scores, RTP flows, jitter, loss and out of order packets. Thus, VQM allows the network administrator to have a full view of traffic as it transverses the network. This is a great benefit, especially when there are multiple devices in the network that could be the origin of the problem. VQM can greatly reduce the time needed to troubleshoot and rectify the problem.

For our second scenario, consider a company that has two offices, connected via a point-to-point T1. There is an IP PBX at the larger of the two offices (Office A), which facilitates call setup and tear-down for all VoIP calls, but audio between IP phones goes directly between phones. The IP PBX also has trunks for all calls to and from the PSTN, so it terminates the audio for external calls. Users at the smaller office (Office B) complain about intermittent voice quality problems for external calls. Despite the fact that inbound audio sounds bad, users say that the people at the other end of their calls never complain about the quality of the audio they hear. Users at Office A do not experience poor audio on any calls. Furthermore, calls between the two offices never have poor audio.

Using VQM, the network administrator begins investigating audio streams from the IP PBX at Office A to phones at Office B. The network administrator finds no problems on the router at Office A, but notices that there is considerable jitter and a small level of packet loss on the router at Office B. Because these symptoms suggest a possible problem with QoS, the network administrator confirms the QoS configuration on the router at Office A. It is (correctly) configured to give priority to traffic with a DSCP value of 46, which is the same value used by phones in the company. However, additional VQM details show the administrator that call streams coming from the PBX are tagged with IP Precedence of 5 (DSCP 40), instead of 46. So, this traffic is not given the appropriate bandwidth guarantees. By updating the QoS configuration at Office A to match either DSCP or IP Precedence 5, the network administrator is able to resolve the external call quality problems.

From these examples, you can see the complexity in troubleshooting VoIP issues and how an easy-to-use graphical implementation of VQM reduces downtime and supercharges QoS. A graphical VQM not only reduces both the time and pain associated with troubleshooting network issues, but also provides a wealth of information allowing network administrators to fine-tune their networks to create an even higher-quality end-user experience.

Todd Lattanzi is a Senior Product Manager for the Enterprise Networks Division of ADTRAN, Inc. For more information, visit the company online at www.adtran.com.

The Greening of Information and Communications Technology and the New Compliance Ecosystem

By Grant Seiffert, President, TIA

Picture yourself the product director for a mid-sized manufacturer whose first international product line is due to hit the shelves in the European Union (EU) just before Christmas. After countless quarters of hard work – growing your company, making the right deals with component or chip vendors and even carriers – your team hit its biggest deadline in stride and you've even shipped the product. Now, you're just waiting for the marketing team to bring it all home.

And then you get the call: a compliance violation in the EU. Your handset's battery doesn't meet the region's new lifecycle requirements, so it's perceived as contributing to a growing environmental problem. In the blink of an eye, even though you've met every regulation in the United States, Brazil and China, you're out of a major market.

If this sounds like a nightmare, it is. Fortunately, it's not a frequent occurrence in today's logistics-and-data-driven consumer market, but environmental compliance failures have kept companies' products off the shelves in overseas markets on many occasions. The financial hit of such an event is only compounded when the violating company has taken pains to comply with environmental regulations in its native country, or even globally, but missed a new development in one crucial market.

Vendors of products at every stage of the telecom supply chain – chipsets, software, components and handsets – face a globalized economy that they have by and large embraced. But globalized markets don't necessarily mean globalized environmental laws. As more markets open to the information and communications technology (ICT) industry, and climate change and other environmental concerns motivate governments worldwide to act, we're witnessing an emerging patchwork of regulations being established region by region. Some of these new regulations may run contrary to previous trends, and in some cases may fly completely beneath a vendor's radar.

...we're witnessing an emerging patchwork of regulations being established region by region. Some of these new regulations may run contrary to previous trends...

Another developing trend is toward product-based regulation. For years, governments have calibrated environmental standards to the perceived impact of manufacturing facilities. The conventional image, for example, is of an EPA expert enforcing the Clean Air Act by measuring

mercury output from a factory somewhere in our nation's heartland. Over the past three to five years, however, there has been a move toward regulators scrutinizing the products those factories produce more closely, rather than the facilities themselves. Factors like handset lifecycles, battery life and LCD screen disposal methods are watched ever more closely by the various bodies authorized to set such standards.

This means that ICT companies will face new challenges for securing and maintaining market access where these new environmental regulations come into effect.

Manufacturers and vendors, particularly those that partner to make the handsets and computers that network the world, must now ask themselves, "Will the handset we sell in Vermont need to be different from the handset we sell in Europe? In Brazil? What about Israel or China?" In many cases, these questions affect every step of the product development cycle, reaching through the design process and often as far back as research and development.

This is not to say that everything is changing haphazardly, or that uniformities are not emerging. A significant example of this is Europe's

Introducing the NEW
Telecom Expense Management Solutions Global Online Community

Visit the NEW Telecom Expense Management Solutions Global Online Community for the latest news and information on managing fixed and mobile communications expenses.

Connect with industry experts, gain valuable insight into communications management best practices, and increase your understanding of how TEM can impact your bottom line.

Get the latest industry information on:

Telecom expense management solutions

Enterprise mobility

Carrier contract sourcing

One Place
One Source
Many Answers

http://telecom-expense-management-solutions.tmcnet.com

Featuring

- TEM Solutions Center
- Ask the Expert column
- Informative articles
- Analyst information
- Case Studies
- White papers
- Live event links
- Product showcases
- FAQs
- and more

Sponsored by Tangoe

Tangoe is the industry thought leader in solutions and services that manage and control the lifecycle of fixed and mobile enterprise communications

RoHS (Restriction of Hazardous Substances) Directive, which works to restrict the level of hazardous substances in the manufacture of electronic devices – essentially phasing in the maximum concentration levels for these chemicals among member states of the EU. It states: "Member States shall ensure that, from 1 July 2006, new electrical and electronic equipment put on the market does not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE). National measures restricting or prohibiting the use of these substances in electrical and electronic equipment which were adopted in line with Community legislation before the adoption of this Directive may be maintained until 1 July 2006."

The RoHS Directive is in a sense quite stark. It met with some resistance, to be sure, even among ardent environmentalists, including disputes over exemptions and a potential rebranding loophole. But the importance to electronics manufacturers of the European market, with its handset penetration rates of more than 100 percent (on average, every person in the region owns more than one handset), coupled with the EU's willingness address violations rigorously, means that compliance was ultimately inevitable. Now fully in place, the RoHS Directive has in short order accomplished an intriguing feat: it has played an outsize role in shaping the global supply chain.

In the past two years, we've seen China adopt a modified version of RoHS, as has South Korea. Japan took on a labeling scheme inspired in part by RoHS, and recently California – which is authorized by U.S. law to set standards at the state level that exceed federal stringency regulations – adopted RoHS-like rules as well. Other U.S. states have enacted what amounts to RoHS a la carte, including minimum required notice rules and many single-substance restrictions. More states are studying specific substances for eventual phase-outs.

Companies are increasingly getting in line with RoHS or RoHS-like compliance. This is happening because in today's logistics-driven supply chains, manufacturers quite literally have no idea where a specific handset or PC will end up when they start engineering it. Shipping costs, labor strikes, natural disasters and simple market fluctuations can change product deployment plans on a metaphorical moment's notice. If smartphones designed for compliance in India end up in Indiana, manufacturers are learning that they'd better meet the appropriate environmental standards. In an industry with such narrow margins, at a time when vendors are competing for the business of ever-fewer consolidating carriers and service providers, a compliance failure that pulls significant inventory off the shelves could be a major disaster.

...the Environmental Protection Agency is developing national R2 (Responsible Recycler) guidelines that should provide a solid base for future state-level enforcement.

For electronics and communications manufacturers, the primary challenge becomes avoiding surprises that could restrict a company's ability to manufacture or market products. In-house or third-party environmental consulting with robust forward-looking capabilities is essential. This clearly includes tracking emerging emissions and product-content standards. But it also must account for the ability to navigate the maze of new collection, recycling and end-of-life management mandates, to track the multitude of global legislative action, and to effectively deal with the very serious corporate social responsibility liability for the ICT industry as a whole.

In the end, manufacturers need to think about how they can work with legislators and agencies at all levels of government, environmental and consumer non-governmental organizations, and various standards-development organizations to promote globally-harmonized approaches to detecting materials of concern. This can be done at either the legal or the technical level, or both.

Over time, of course, the goal is to bring global legislative and regulatory regimes into harmony as well, whether through bodies like the International Telecommunication Union or through effective free trade agreements like those recently signed between the United States and South Korea, Peru, Colombia and Panama. There are more encouraging signs. Of particular note: the Environmental Protection Agency is developing national R2 (Responsible Recycler) guidelines that should provide a solid base for future state-level enforcement.

What we still don't know is precisely how Congress will affect the proceedings, let alone the many bodies setting the rules worldwide. In the case of the trade agreements, for example, only Peru has been approved by Congress, and the other three, while alive and well, are likely to face opposition or indifference in an election year where the status quo rules.

That is why solid environmental intelligence and management are so essential. ICT manufacturers need to have the right kind of integrated product managers, design teams and compliance teams, and each must have a mechanism for properly understanding what the others are doing. Without those tools, vendors will find themselves increasingly affected by the multiplicity of compliance bars they must meet.

It's an issue that goes right to everyone's bottom lines, in our industry especially. If an auto manufacturer fails to meet U.S. standards, or even EU standards, it can face very stiff fines. But a telephone is much easier to pull off the shelves than a car is to pull out of a showroom. Losing a sales cycle simply for failing to be aware of the latest compliance debates, or for misreading a developing nation's commitment to environmental legislation, is something profoundly more damaging. It's a worst-case scenario a well-managed compliance team will help vendors avoid. IT

Grant Seiffert is President of the Telecommunications Industry Association. Seiffert joined TIA in 1996 as Director of Government relations. He was promoted to Vice President in 1998, directing domestic and global policy to help the association's supplier members gain marketing opportunities around the world. In that role, he oversaw policy, including interaction with the U.S. Congress, the FCC and the Administration, as well as with international regulatory bodies and government leaders, and fulfilling the senior management role for association membership and TIA tradeshows. He succeeded Matt Flanigan as President in January 2007. Prior to joining TIA, Seiffert served five years with Senator John McCain (R-Ariz.), former chairman of the Senate Commerce Committee. He holds a Bachelor of Science degree in political science from Radford University.

3 Million Unique Visitors Come to TMCnet.com*

Did they see your ad?

TMCnet Features:

- VoIP Blog by Rich Tehrani
- VoIP & Gadgets Blog by Tom Keating
- VoIP Authority Blog by Greg Galitzine
- Industry Channels in VoIP, CRM, Call Center and IPTV
- Global Online Communities
- 3,000 news stories delivered weekly

Here's who they DID see...

salesforce.com Success On Demand.™ Microsoft Dialogic AVAYA hp aculab SANGOMA MITEL Interactive Intelligence 8x8, Inc.

Plus ads from more than 100 other companies!

TMCnet, the Leading Communications and Technology Web Site.

TMC One Technology Plaza • Norwalk, CT 06854 U.S.A. • (203) 852-6800 • www.tmcnet.com

*Webtrends July 2007

The Further Adventures of IMS

By Richard "Zippy" Grigonis

The IP Multimedia Subsystem (News - Alert) (IMS) is an upcoming common network service delivery architecture for both wireless and wireline applications. With IMS, Internet-type wireline applications can now be delivered just as easily to mobile devices as desktop-bound PCs. This is sort of ironic since wireline operators envy the advanced applications being deployed in the wireless world, and the wireless operators have always been jealous of the broadband capacities now available in the wireline world.

By decoupling and modularizing everything (in schematic diagrams if not yet in real life), relying on development platforms that re-use network resources such as group list management, location, presence, etc., and controlling the whole shebang with software and SIP (Session Initiation Protocol), network operators and even third party developers adopting IMS should both easily and quickly be able to hatch as many new services as they can possibly think up, then try them on their customers. Those services finding favor with the public will be marketed and promoted extensively. Others will vanish, never to be seen again.

From its humble beginnings in 1999, in an industry forum called 3G.IP, IMS was picked up and elaborated by the wireless standards body 3rd Generation Partnership Project (3GPP), and a succession of other standards bodies, such as the 3GPP2 and TISPAN. These groups continued to add to IMS' capability, increasing its scope beyond the original GSM/GPRS formulation to embrace Wireless LANs, CDMA2000, fixed line, WiMAX, and every other network in the known universe. The mobility aspect of IMS alone helps in the transformation of unified messaging into unified communications. And although IMS isn't entirely synonymous with Fixed-Mobile Communications (FMC), the concept of Voice Call Continuity (VCC) between wireless LANs and cellular mobile devices has become a major topic of interest – or bone of contention, if one talks to proponents of IMS' competing technology, UMA (Unlicensed Mobile Access). UMA is a "quick fix" technology for existing networks that enables roaming between GSM cellular and Bluetooth or WiFi (it's now also known as the Generic Access Network, or GAN).

...Then there's the possibility that no services are ever be ported to IMS, depending on the "corporate culture" of the carrier and the size of their pocketbook...

As has been pointed out by others, IMS is really more of a software-centric approach to multimedia services networking. And with IMS you contact a person on the network, not a device or series of devices

if you don't know exactly where the person is at the moment. IMS thus provides network operators with a new-found flexibility and simplicity when it comes to development and deployment. But the problem, as stated by one European carrier, is that with IMS, "one has to pay a lot to achieve simplicity". Moreover, in the absence of a bevy of futuristic "killer apps" waiting to be deployed, services initially ported to IMS include such time-honored, revenue-generators as voice service.

Then there's the possibility that no services are ever be ported to IMS, depending on the "corporate culture" of the carrier and the size of their pocketbook. Even carriers that were quite gung-ho on IMS, such as BT (News - Alert) and France Telecom, have had to slow down as they await network element interoperability testing to take place and second sources for the equipment to appear.

A 2007 poll by Comptel Corporation (www.comptel.com), a maker of dynamic Operations Support Software (OSS), found that 32 percent of operators worldwide had decided to move towards an IMS architecture within the next two years, but about another third (32 percent) had made no such plans. The remaining service providers foresaw IMS deployment in 2 to 4 years (27 percent) or beyond that time (6 percent). The always-optimistic Americans had a majority of operators (78

TMC INTERNET TELEPHONY® Conference & EXPO

September 16-18, 2008

L.A. Convention Center,
Los Angeles, California

www.itexpo.com

The Ultimate

IP Communications Experience!

- **Discover New Solutions**
- **Establish New Relationships**
- **Learn How to Select and Deploy**
- **Meet Hundreds of Potential Partners and Suppliers in One Place, at One Time**

Diamond Sponsor:

aculab

For More Information, Contact Dave Rodriguez at (203) 852-6800, ext. 146 or drodriguez@tmcnet.com.

percent) expecting to adopt the IMS architecture sometime over the next 2 to 4 years. In the rest of the world, about half the operators expected to migrate to IMS within two years (Asia-Pacific – 50%, Europe – 47%) but a sizeable chunk hadn't decided whether they would ever migrate to IMS (Asia-Pacific – 50%, Europe – 41%).

Many pundits have decried the slow progress of IMS adoption by the world's network operators and service providers, and predict that at best we'll see partial, piecemeal implementations of IMS here and there in the network.

Such opinions about IMS are always almost immediately counterbalanced by news such as the recent announcement that Nokia Siemens Networks (www.nokiasiemensnetworks.com) is supplying T-2 Slovenia, the country's leading IPTV and Internet service alternative provider, with Europe's first Internet High Speed Packet Access (I-HSPA) network, an architecture developed by Nokia Siemens to bring full wireless mobility to 'heavy' data and rich multimedia traffic, along with a complete 3G network based on Wideband Code Division Multiple Access (WCDMA) technology. There will also be a Nokia Siemens MSC (News - Alert) Server mobile softswitching solution supporting IMS, which will enable T2 Slovenia to rapidly introduce new IP-based voice and multimedia services.

In any case, there is almost universal agreement among standards groups that IMS will ultimately reign in the global network.

And NewStep Networks (www.newstep.com), the company that provides solutions enabling what they describe as an "any device, any place, any content" communications experience, since 2006 has partnered with Embarq (www.embarq.com) to deliver IMS-based FMC using NewStep's Converged Services Node (CSN), an application server that employs signaling to control user sessions while enabling PBX features on mobile phones. The CSN can be hosted in a carrier's network, and works fine with pre-IMS and IMS architectures in any domain — fixed, mobile, broadband or enterprise. Embarq used the CSN to roll out its initial "Smart Connect" services in October 2006, which enables users to have a single phone number and voicemail box for multiple devices, and which can easily switch calls from a wireless network to a corporate WiFi network. An even more sophisticated service, Smart Connect Plus, uses a dual-mode handset from UT Starcom (www.utstarcom.com), a company that sells converged broadband wireless and wireline products, an integrated IPTV solution, and a full line of handset and customer premise equipment to operators in both emerging and established telecom markets.

NewStep also has partnerships with fg microtec and Paragon Wireless. As it happens, fg microtec (www.fgmicrotec.com) provides of best-of-breed multimedia applications for 2.5G, 3G and WLAN mobile phones, such as OMA/IMS compliant push-over-cellular clients, IMS and SIP-based VoIP solutions including VCC for converged GSM and VoIP applications, video telephony and video sharing over 3G and WLAN networks. Paragon Wireless (www.parawireless.com) offers customizable, inexpensive VoWLAN handsets and solutions known for their user-friendly interfaces. They offer SIP/IMS-based dual-mode solution for both GSM and CDMA.

A User-Oriented Architecture?

Other, more dire predictions involve looking upon SOA (Service-Oriented Architecture) and Web Services as alternatives to IMS and its service architecture. Amazon, Google (News - Alert), Microsoft and other IP-based players are focusing on Web Services APIs that can be used to take existing platforms and create "mash-ups" of new, composite packet/circuit applications. Such critics fail to realize that these are not competitors but are in fact powerfully complementary to IMS and even SIP as a service control protocol.

How? Superficially, one could say that SOA is basically another way of describing a component model for distributed systems, similar in a way to the ideas behind such things as CORBA, and that IMS is also a modularized distributed system and resembles an SOA. As Martin Cookson, of BEA Systems (News - Alert) wrote online in 2006: "In IMS does not deliver the complete architecture for an operator. This requires the combination of an OSS/BSS architecture, service creation and execution (OMA OSE?), device architecture, data model, etc. The IMS is however an important (and large) component. An IMS therefore must expose mechanisms which can be composed and orchestrated to form part of an overall enterprise approach to build complete communication products. The comparison of an IMS to SOA is a good one. Perhaps the reality is that the SOA architecture is applied recursively. An IMS is a SOA instance, content management is a SOA instance and OSS/BSS systems are a SOA instance. All three (and more) form part of a telecom enterprise SOA. The next step is the SOA marketplace in which enterprises interchange services (IMS session from the operator and financial transaction from a bank) and compose new products."

But the relationship can be made much deeper. As telecom consultant and IMS expert Christophe Gourraud writes, "An important question is how the integration of IMS and SOA should be performed. At the moment, the prevailing understanding is that it should take place uniquely through the definition of Web Services, permitting to integrate a SIP-centric IMS with a Web Services and SOA-centric application layer. I believe that this view is incomplete and that the optimal integration between IMS and SOA should be more intimate, considering that IMS service logic should combine the direct usage of SIP and Web Services for service delivery, instead of only developing SIP-centric logic and web services-centric logic connected through a loose Web Services adaptation layer, similar to the one that connects the pre-IMS networks with SOA. I gave a name to this more intimate integration architecture, which extends both OSA and the standardized IMS service architecture: the User Oriented Architecture (UOA)."

In any case, there is almost universal agreement among standards groups that IMS will ultimately reign in the global network. Its closest competitors (e.g., UMA) don't have its vast scope, nearly every equipment vendor is building IMS-compliant products, SIP has indeed emerged as the de facto call control/signaling standard, and even the aspects of the IMS model based on some far-out assumptions (popularity of presence and video) have turned out to be correct.

Like VoIP, IMS will slowly percolate through the world's network, just a VoIP did over the past 12 years. Good things come to those who wait. IT

Richard Grigonis is Executive Editor of TMC's IP Communications Group.

The following companies were mentioned in this article:

Comptel Corporation
www.comptel.com

Embarq
www.embarq.com

fg microtec
www.fgmicrotec.com

NewStep Networks
www.newstep.com

Nokia Siemens Networks
www.nokiasiemensnetworks.com

Paragon Wireless
www.parawireless.com

UT Starcom
www.utstarcom.com

WITH IP-PRIME YOU CAN EASILY DELIVER

ROMANCE,

COMEDY,

ADVENTURE,

SPORTS

AND MORE THAN 350 OTHER EXPERIENCES DIRECTLY TO THE SET TOP BOX.

It's Prime Time for Telcos. IP-PRIME offers a simple turnkey solution that provides hundreds of SD/HDTV and audio channels, robust middleware, a secure architecture and encrypted video ideal for DSL-based IPTV delivery—all transported via SES AMERICOM's reliable satellite fleet seamlessly to the set top box or, alternatively, to your central office head-end.

IP·PRIME® Delivered

And with HD-4 from IP-PRIME, you can easily deploy MPEG-4 HDTV over your existing MPEG-2 system.

IP-PRIME HD-4 allows operators to deploy HD rapidly by adding an MPEG-4 service "layer" without having to overhaul their existing MPEG-2 networks. The single-rack HD-4 solution can deliver all the HDTV channels you need within 60 days and can be easily scaled to add more HD programming.

Give your customers all the video they will ever need—both SD and HD—with IP-PRIME and HD-4 from SES AMERICOM.

For more information, contact Kent Verner at (1) 609-987-4017.

Online at: www.ip-prime.tv

SES AMERICOM

SES AMERICOM, Princeton, N.J. USA

info.americom@ses-americom.com

Service Oriented Architecture — Could it Lead to Automatic Programming?

By Richard "Zippy" Grigonis

Service Oriented Architecture (SOA) (also spelled Service-oriented Architecture or SoA) is not a product but an architectural style that allows different applications to exchange data and flexibly take part in business processes loosely coupled with their associated operating systems and programming languages. This in theory allows a business to be more agile and hatch new applications when needed. (That's why I sometimes jokingly call it "The 'IMS' of business process programming.")

The SOA model is the modern logical extrapolation of both modular programming and distributed computing in that functionality is decomposed into distinct building blocks (services) which happen to be larger than the objects and classes found in conventional programming, and these are distributed over a network and can be called upon and reused to create business applications. Each service can send data to other services, and an activity can be coordinated among two or more services. But instead of embedding calls to each other in their programming code, defined protocols specify how services communicate with each other. In a process called orchestration, a business process expert links and sequences the services into an ad hoc composite application to fulfill a new or existing business system requirement.

Indeed, high-level languages such as BPEL (Business Process Execution Language, a language for specifying business process behavior based on Web Services) and specifications such as WS-CDL (WS Choreography Definition Language, an XML-based language describing peer-to-peer collaborations of Web Services participants) and WS-Coordination further elaborate the concept of services, providing a method of defining and orchestrating fine-grained services into more coarse-grained business services, which in turn are integrated into business processes realized in the form of composite applications or portals.

What really differentiates SOA from older modular, object or component-based programming is that SOA enables its modules (services) to be developed, deployed and maintained by multiple, unrelated development teams, some of which may not even belong to the same organization (e.g., teams at partner organizations or even those providing publicly-available services).

Since the interface definition hides the implementation of the language-specific service, code no longer need become obsolete because of the platform on which it was written: services written in VB.NET and C# on Microsoft .NET platforms and services written in Java on Java EE platforms, for example (or even old COBOL code presented as a software service) can be used in a common composite application, or can themselves call upon services running on each other as Web Services.

Much of the 'glue' of SOA is XML and SOAP, but lately there are many proponents (such as Jim Burton's (News - Alert) group) of an SOA marriage with REST (Representational State Transfer, often used to describe any interface that transmits domain-specific data over HTTP.) With REST, the modules send out GET commands via HTTP to URIs to retrieve to issue commands and retrieve data.

Any way you look at it, SOA operates at a higher level of abstraction than normal programming. SOA "products" as such are tools for implementing SOA policies within an organization and orchestrating the services to perform tasks.

For example, IONA Technologies (www.iona.com) offers the cleverly-named Artix ESB Enterprise Service Bus. Eric Newcomer, CTO at IONA, says, "SOA plays a huge role in the current trend toward IP-based telephony, video, data, and other services by simplifying development and speeding time to market for new products. This is extremely important as competition heats up, and new and existing entrants jockey for position. IONA's contributions are based on our decade-long experience with SOA, including CORBA and Web Services, and soon with open source and Eclipse/OSGi-based systems. We have helped some of the world's leading communications providers adopt SOA and realize its benefits in projects supporting new services such as Voice over IP and IP TV."

At BT (www.bt.com), to speed up its massive rollout of its all-IP 21st Century Network (21CN), the entire company is being transformed via perhaps the world's largest implementation of SOA. At a recent SOA event, W. George Glass, Chief Architect for BT, said that, thanks to SOA, BT was able to shut down 800 or its 3,500 core systems, and plans to close down another 700 to 900 systems around the time you read this. Thus, BT has closed over 1/5th of its systems estate as a result of its SOA initiative and has re-organized its entire IT department around the SOA architecture. It has managed to deftly transform and re-skill its design community, and BT now links its SOA work directly to its business initiatives with the help of its new Matrix Platform Architecture. The Matrix ties together 14 platforms with common capabilities that are reusable and uses standards to streamline engineering and maintenance costs. The ultimate goal of this transition is to make it much easier for BT to build and introduce new products and services for customers by reusing common components, thereby allowing BT to focus development resources only on creating new functionality.

BT plans on being fully SOA-enabled by 2009. "We're using SOA to build a customer oriented architecture," says Glass.

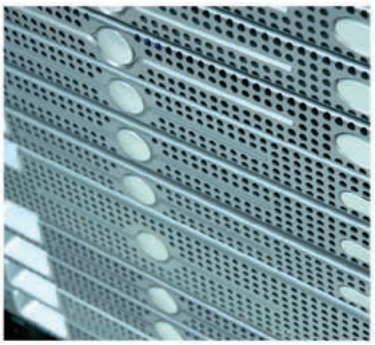
Nortel (www.nortel.com) has also unveiled a huge strategy that leverages SOA and Web Services for the simple, rapid and efficient delivery

INTEROP®

LAS VEGAS | APRIL 27–MAY 2, 2008

DON'T MISS THE LEADING BUSINESS TECHNOLOGY EVENT

- VIRTUALIZATION
- DATA CENTER
- IT SERVICE MANAGEMENT
- GREEN IT
- IT SECURITY
- PHYSICAL SECURITY
- SAAS
- NETWORKING AND SERVICES
- APPLICATION DELIVERY
- STORAGE
- UNIFIED COMMUNICATIONS
- VOIP
- WIRELESS AND MOBILITY
- ENTERPRISE 2.0



Co-located at Interop:

CSI SX SECURITY EXCHANGE

software2008

REGISTER TODAY TO RESERVE YOUR FREE EXPO PASS.

- **20,000 ATTENDEES**
- **500+ EXHIBITORS**
- **200+ SESSIONS**

Interop is your only opportunity to see all the latest technologies in one place and get the information you need to be an IT leader.

Register today to reserve your Free Expo Pass.

Enter priority code CMADNL08 at www.interop.com.

**Event is open to trade participants only. A business card demonstrating industry involvement will be required for entry.*

CMP United Business Media

of communication-enabled applications and business processes. With SOA, customers can integrate advanced communications services into business applications, increasing productivity while reducing capital and operating expenditures.

Nortel's Communications Enablement strategy, serving both enterprises and carriers, is based on four core components: enabling Web Services on selective products and solutions, the development of a software-based foundation environment to simplify the creation of customized communications-enabled applications and business processes, alliances with industry leaders like IBM, and the development of a global services practice to support these SOA-based applications and solutions. Nortel is communication-enabling apps by integrating presence, location, identity, conferencing, and other communication and network capabilities within the Nortel portfolio into business processes.

Nortel is making products available as a Web Service and is introducing new products and solutions built for SOA-based environments. Nortel recently introduced Web Services enablement on the Application Server 5200 and Communication Server 2000 IP Multimedia Softswitch, which allow service providers to offer both enterprise and residential customers interactive multimedia communications tools for their websites based on functionalities such as instant messaging, videoconferencing and presence. Web Services capabilities now also appear Nortel's Contact Center and Advanced Speech platforms.

Nortel is also in the process of releasing a software-based foundation environment that enables network engaged applications (or services) across a customer's multi-vendor communications infrastructure. This product, which should be available by the time you read this, provides orchestration of real-time services in a multi-vendor infrastructure environment across multiple domains (enterprise, carrier, wireless and wired) and allows communications-enabled apps to be rapidly created and integrated to customers' business processes for addressing specific needs.

Nortel and IBM (www.ibm.com) announced that the IBM WebSphere Application Server will be integrated into Nortel's new software-based solution foundation environment. IBM and Nortel will market communications-enabled solutions comprised of services, the Nortel software based foundation environment, IBM software and services and multiple hardware platforms including IBM BladeCenter and System x servers. Together, Nortel and IBM are initially targeting companies in the healthcare and retail markets. Additionally, the Nortel software-based foundation environment will be integrated with IBM's unified communications and collaboration platform, Lotus Sametime. Businesses will now be able to enjoy click-to-call, click-to-conference, telephony presence and shared directory services (e.g., a customer can see if contact's phone is in use without leaving the Lotus Sametime client).

Richard Tworek, General Manager of SOA and Next-Gen Platforms at Nortel, says, "I'm responsible for our SOA strategy and software platform that provides a communications focus solution suite to the customer market. In December 2007 we did an announcement with IBM concerning Nortel's SOA's strategy for the communications market, which involves communications-enabling business processes. We've announced a framework that's a software platform – our new Communications Enabled Applications platform – and SOA environment allowing connectivity to business processes. So if you have an ERP or what have you, at some point there may be a need for a communications event between processes. We provide a very simple Web Services interface which allows people to say, 'Okay, processes, communicate!' Our software platform then takes that command and allows communication to occur across multiple call servers. So we're not just dedicated to Nortel call servers. We've abstracted the entire network."

"Most organizations are heterogeneous, so they may have a Cisco or Nortel call server," says Tworek. "We've shown demos of our platform working with both of those. A company's IT person can have just a very simple Web Services call and issue a 'make call' and it doesn't matter what device the user is on or what call server they're using."

The Return of Automatic Programming?

Programmers were amazed to read in the February 1981 issue of *Personal Computer World* of a pair of British developers, David James and Scotty Bambury, who had announced a program called "The Last One". It was a sort of super program generator that would accept plain English input. Once you gave it a basic program structure, it asked questions (like an expert system) to fill in the gaps in its information about the proposed program, such as asking about details of database fields, what key fields would be used to search a file, what formulas would have to be run, and so forth. Once these questions were answered, The Last One would then generate two versions of the program — one following the exact structure given by the interviewee, the other made using the program's own knowledge of programming to optimize the code.

Despite a massive publicity campaign, The Last One was not "the last program you ever needed to buy". Although it's still used in places in Britain, it never quite became a "household item", if you know what I mean.

History repeated itself when the April 4, 2001 issue of *New Scientist* announced that Bob Brennan, a software engineer at a Cambridge-based start-up called Synapse Solutions (at the time located at www.synapse-solutions.co.uk), had developed a program called MI-Tech (Machine Intelligence Technology) that would also extract instructions from ordinary language statements and translate them into machine code. Today, in 2008, it appears that MI-Tech has followed The Last One onto the back burner of programming tools.

But wait a minute. With today's SOA, a business process expert links and orders large chunks of functionality (the services) into an ad hoc composite application in response to the request of a company's executives and managers. During this process of "orchestration", the services are associated in a non-hierarchical arrangement by the software/business process engineer, using a special software tool which contains a comprehensive list of all of the available services, their characteristics, and a means to record the designer's choices which the designer can manage and the software system can consume and use at run-time. He thus can do "service composition" or compose applications, processes, or more complex services by stringing together other, less complex services together. It's like working with an extremely high level language.

Now, in an increasingly "open source" world where more and more services become publicly available, the number of possibly useful composite applications capable of being assembled on-the-fly will be enormous. If you simply replace the human expert with a software expert system, business managers could conduct a "session" with the expert system, answering questions by it in an effort to describe what's needed to meet a particular business need (communications-related or otherwise), and the system will go forth, collect and assemble the code, and insert it into the back office.

Just as the whole business world is becoming a series of interconnected informal contact centers on the communications side, so too could it become a vast automatic programming system on the data side.

Just a thought. IT

Richard Grigonis is Executive Editor of TMC's IP Communications Group.

The following companies were mentioned in this article:

BT
www.bt.com

IBM
www.ibm.com

IONA Technologies
www.iona.com

Nortel Networks
www.nortel.com


The most important global technology event of the year!
CTIA WIRELESS 2008
A Division of CTIA–The Wireless Association®
Wireless &YOU
Unstoppable.
CTIA WIRELESS 2008
The convergence of more than 1,100 exhibiting companies, dozens of industries and over 40,000 professionals from 125 countries all working toward the common goal of revolutionizing wireless. Whether in broadband convergence, enterprise, advertising, social networking or entertainment– CTIA WIRELESS 2008 is the global marketplace connecting wireless and you.
April 1-3, 2008
Las Vegas, NV, USA Las Vegas Convention Center
www.ctia.org/ctiawireless
CTIA
The Wireless Association®

2008 Internet Telephony Best of Show Awards

By: Richard "Zippy" Grigonis

At the recent Internet Telephony Conference & Expo in Miami Beach, Florida, the editorial team of TMC, representing TMCnet, Internet Telephony magazine, Unified Communications magazine, Customer Interaction Solutions, and IMS magazine, as well as TMC Labs, took to the floor of the Miami Beach Convention Center and wound their way through the Exhibit Hall, seeking out the best and the brightest of this year's event.

The Exhibit Hall provided ample opportunity to see some new products as well as some new companies to the space. And the task of the editorial team covering the event was not made any easier by the sheer volume of interesting and innovative solutions on display. Every angle of our industry was represented, from VoIP equipment providers to contact center to unified communications, from wholesale VoIP providers, to wireless to open source.

Speaking of Open Source telephony, it should be noted that the sheer volume of vendors exhibiting at ITEXPO who play in that space was larger than it ever was before. And the solutions on display were impressive enough to convince the editors to create a new category honoring the developers of today's cutting edge, open source telephony solutions — The Best of Open Source.

As usual, it was a difficult decision making process just to whittle the list down, much less select the final winners. But, after much discussion and not without some debate, the editorial team selected the best of Internet Telephony Conference and EXPO East 2008. Without further adieu, we present the list of deserving companies, whose products were showcased at the event in Miami Beach, we wish them continued success, and we look forward to exploring the Exhibit Hall floor at our next ITEXPO, taking place in Los Angeles, at the LA Convention Center September 16–18, 2008. IT

Best Service Provider Solution
- PhoneFusion
- VIXXI Solutions
- TelcoBridges
- Star2Star

Best Large Enterprise Solution
- Interactive Intelligence
- Aastra
- Quintum

Best SMB Solution
- Allworx
- Critical Links
- Grandstream

Best Consumer Offering
- Packet 8
- MobileMax
- i2 Telecom

Best Development Tool
- Touchstone Technologies
- Aculab
- Pika Technologies

Most Innovative Product
- Teles USA
- Plantronics (Ahern, distributor)
- Mobotix (ABP, distributor)

Best Booth
- Allworx
- GlobalPOPs
- Ontario

Best Newcomer
- Rhino
- Jazinga
- Sutus

Best of Call Center 2.0
- iKnowWare
- Aheeva
- Cincom Systems, Inc.

Editors' Choice
- U4EA
- AudioCodes
- Applianx

*NEW Category for 2008 Best of Open Source
- Intuitive Voice
- Fonality
- Digium

Integrated Marketplace

Advertising Index

Super Trip

By Greg Galitzine

A day after the Super Bowl, and a day before Super Tuesday, I was fortunate enough to find myself in Phoenix, Arizona on the road again and in the offices of a number of companies who are each in their own way contributing to the continuing growth of the IP communications industry.

In fact, the very last meeting of the trip took place in the lobby of the world-famous Arizona Biltmore Hotel, which was the headquarters hotel of John McCain's campaign in his home state on the night that he won that particular state's primary. (In order to avoid a 'Dewey Beats Truman' legacy, I will note that only 1% of the results had been counted as I wrote this. If Ron Paul somehow pulls this one out, I'll update this column online, in my blog.)

But more to the point, that meeting at the Arizona Biltmore was with Craig Steen, President of IgeaCare, USA. The company's parent IgeaCare Systems, Inc., is based in Richmond Hill, Ontario, Canada.

IgeaCare Systems manufactures telephony-based communication systems, but what makes them unique is their focus on the healthcare market, with a variety of solutions targeting that particular market.

Steen told TMC of the company's commitment to focus on two areas, healthcare and emergency response mass notification.

Regarding emergency response mass notification, IgeaCare offers the eResponse solution.

IgeaCare is playing in a very exciting space, one that is forecast to grow on all fronts.

The solution is designed to deliver rapid contact between Healthcare institutions, Public Relations or Safety Teams and their targeted or mandated contact groups. The solution delivers messages via a number of different media, including text-to-voice, SMS, and mass visual notification, which enables emergency messages to be sent to and displayed on large screens.

The solution, which is positioned for first responders, is deployed as a server-based offering. Steen told TMC that IgeaCare, working through their VoiceGate division, designed and deployed a custom solution for the Royal Canadian Mounted Police five years ago, in order to allow them to call in their special agents and SWAT teams when desperate situations call for it. The solution is also applicable to other vertical markets, including K–12, hospitality, and retail.

On the healthcare side, Steen spoke of the current aging trend in America. "We're all getting older," he said. Analysts are pointing to 11–20 percent growth in the number of beds that are forecast to increase the capacity of retirement homes, assisted living facilities, and nursing homes.

To that end, IgeaCare has developed a Nurse Call solution. The IgeaCom series is designed to seamlessly integrate all the functions of a traditional nurse call system, while providing unsurpassed reliability through telephony-based technology. The IgeaCom series of offerings enables the whole gamut of calling patterns: resident-to-staff, staff-to-resident, and resident outgoing and incoming local and long distance calls. The IgeaCom solution is also designed to seamlessly integrate with many current PBXs on the market.

Another healthcare solution, the real-time location system, gives users the ability to locate patients, staff, and assets. The real-time location system overlays quite nicely with the nurse call system, Steen said.

The final offering Steen spoke of was the company's HealthAnywhere home healthcare product. The product came to IgeaCare through an acquisition of VaaSah Inc., a company specializing in chronic disease management technology solutions. The solution is designed to be deployed on a number of portable devices, such as a smartphone, a PDA or a tablet PC.

By monitoring a patient's vitals, such as blood pressure, weight, temperature, and so forth, the solution ensures that healthcare professionals are able to initiate a call to the patient so that they might follow up with further instructions regarding the patient's care.

IgeaCare is playing in a very exciting space, one that is forecast to grow on all fronts. It's true, as Steen said, that we're all getting older, and projections are all indicating increased opportunity for all the various service industries that will no doubt pop up to service the baby boomer generation as they start to retire and enter their 'golden years'.

Through a variety of innovative telephony-based solutions targeting the healthcare market, IgeaCare is well-positioned to take advantage of the market opportunity as it arises. IT

– Greg Galitzine is Group Editorial Director for TMC.

Solutions for Contact centers, Conferencing, Fax technology, Military applications...

Our communication technology is optimized for your sector... ARE YOU?

4 reasons why we're number one for communications technologies

Contact center

Contact centers are all about people, processes and technology – and Aculab provides key enabling technologies to help you succeed with your intelligent customer contact solutions. Reliable, scalable products underpin virtual, hosted and networked operations across present and next generation infrastructures. Our market proven media processing resources and connection options are used worldwide in mission-critical, inbound and outbound customer interaction centres, helping to transform the way businesses communicate.

Conferencing

Global constituencies need to communicate and converged collaboration services are increasingly used to unite geographically diverse audiences. If your business is helping others improve their internal and external communications through multimedia, toll-free, reservation-less or unified conferencing, Aculab offers state-of-the-art enabling technologies to help you. Our fully featured, high density, low cost per channel and superior voice quality proposition is ideal for carrier-grade audio and VoIP-based conferencing platforms.

Fax technology

If your primary business is fax – whether outsourcing or hosting fax services or deploying fax servers – Aculab offers the reliability, scalability, and compliance you need to succeed. As the market leader in fax enabling technology, Aculab should be at the heart of your enterprise-class, hard-copy data management and delivery solutions. Our market proven products can help you deliver mission critical desktop, broadcast or production-class fax in many business sectors.

Military applications

Aculab has become a centre of excellence for many agencies delivering network centric communications solutions for deployment in tactical and infrastructure networks throughout the defense technology sector. Our advanced enabling technologies and responsive commitment to bespoke engineering development provide essential interoperability and highly effective, redundant, reliable and scalable components that enable our partners to deliver secure applications for joint land, sea and air operations.

Our difference

When you invest in a partnership with Aculab, you get more than the highest quality media processing technology that has been optimized for your sector. Whether it's for contact centers, conferencing, fax technology or military applications, you get the reassurance of a stable and proactive partner, offering continued support and enabling you to adapt to change before it happens.

Our technology brings you

- **Reduced operating costs**
- **Faster time to market**
- **Improved margins and ROI**

For further information...

www.aculab.com/4reasons
info@aculab.com
+1 781 433 6000
+44 (0) 1908 273802

aculab

The technology **driving** your success

The Future of VoIP

It's time to call VoX.

Millions of people are benefiting from the power of Voice over IP (VoIP) phone service. If your customers aren't already asking about it -- they will. VoX provides wholesale VoIP services with superior quality, reliability and scalability. Our proprietary SIP-based architecture is uniquely designed to be ultra efficient, with no single point of failure. It's an advantage your customers will hear when they make a call. We also offer competitive features, flexible back office management tools and aggressive pricing with no capital investment required.

Are you ready for the future of telecom?
Let VoX help you maximize your VoIP opportunities.

Contact us today to learn more. 1-800-773-6966

VoX Communications Corp.
610 Sycamore Street, Suite #120, Celebration, FL 34747
info@voxcorp.net

www.voxcorp.net

VoX
The Voice of Broadband